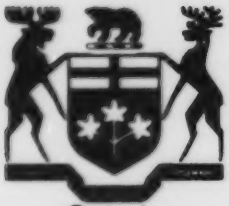

Standing Committee on Public Accounts

Annual Report 1989

2nd Session, 34th Parliament
39 Elizabeth II

STANDING COMMITTEE ON
PUBLIC ACCOUNTS

Ontario

LEGISLATIVE ASSEMBLY
ASSEMBLÉE LÉGISLATIVE

COMITÉ PERMANENT SUR
LES COMPTES PUBLICS

Queen's Park
March 1990

The Honourable Hugh Edighoffer, M.P.P.,
Speaker of the Legislative Assembly.

Sir,

Your Standing Committee on Public Accounts has the honour to present its Report and commends it to the House.

Ed Philip, M.P.P.
Chair

STANDING COMMITTEE ON REGULATIONS
AND PRIVATE BILLS

Ontario
LEGISLATIVE ASSEMBLY
ASSEMBLÉE LÉGISLATIVE

COMITÉ PERMANENT DES RÈGLEMENTS
ET PROJETS DE LOI PRIVÉS

STANDING COMMITTEE ON PUBLIC ACCOUNTS

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COMMITTEE REPORTS

PREAMBLE

The 1989 Annual Report of the Standing Committee on Public Accounts documents the Committee's activities for the period April to December 1989. This Report provides a summary of the investigative process employed by the Committee and an overview of the 1989 agenda and Committee reports.

In 1989 the Standing Committee on Public Accounts completed nine reports, six of which are being tabled as part of this Report. The remaining three reports were tabled under separate cover in the Committee's First Interim Report 1989 released in July 1989 and Second Interim Report 1989 released July 1989.

The Committee would like to take this opportunity to extend its appreciation to the members of the public who met with the Committee on the field trips and the Ministry officials who organized the tours of provincial facilities. As discussed in this Report, these visits have been most beneficial to the Committee in fulfilling its mandate.

Finally the Committee would like to acknowledge the important role of the Office of the Provincial Auditor in providing assistance to the Committee throughout the investigative process and the assistance provided by the Clerk, Ms Tannis Manikel and Ray McLellan of the Legislative Research Service.

COMMITTEE'S ROLE AND AGENDA 1989

The Standing Committee on Public Accounts is empowered under the Standing Orders of the Legislative Assembly to review and report to the House its observations, opinions and recommendations on the Report of the Provincial Auditor and the Public Accounts which are permanently referred to the Committee. In addition, the Committee reviews subjects referred to it by a resolution of the Legislative Assembly. The primary objective is to attempt to ensure accountability of Cabinet and the bureaucracy in administrative matters. The Committee frequently undertakes investigations on its own initiative.

Pursuant to Standing Order 104(j), the Committee's "Terms of Reference", the Members conduct investigative hearings and make site visits in order to examine and report to the Legislature on a broad range of matters, which include:

- the reliability and appropriateness of information in the Public Accounts;
- the collection of and accounting of revenues;
- the maintenance of expenditures within the limits and for the purposes authorized by the Legislative Assembly;
- the adequacy of safeguards to protect assets from loss, waste, and misappropriation;
- the regard for economy in the acquisition of goods and services;
- the regard for efficiency in operations;
- the effectiveness of programs in achieving their stated objectives;
- the examination by the Sub-Committee of the full Committee, in confidence, of the Premier's travel expenditures, with any questions or concerns to be brought forward to the full Committee for review; and
- the consideration of proposed changes to legislation related to legislative accountability.

Reporting Methodology

The Committee has benefitted in recent years from new procedures and approaches which increase its effectiveness and enhance the accountability of government through the following initiatives:

- In-depth briefings by staff of the Legislative Research Service help the Committee to assess the Auditor's findings and develop lines of inquiry prior to each hearing;
- The Committee at times issues reports on matters of a particularly pressing nature, in addition to its Annual Report;
- The Committee visits facilities as part of an initial investigation and also as an instrument of follow-up to ensure compliance; and
- There has been an increased integration with the work of other legislative committees. The Committee has recommended that another Committee conduct an investigation in those instances where it deems that follow-up is needed to deal with policy issues. This approach helps to ensure that the Committee does not deal with policy issues as they arise and maintains the focus on value-for-money matters.

The Committee has in recent years continued to expand its reporting on the audits conducted by the Provincial Auditor. The Committee's approach has evolved beyond formal reviews and discussions with delegations to include field trips. The complexity of the issues at times requires a "hands-on" approach, allowing the Members the opportunity to meet with professionals and lay people in the field to discuss the concerns of the Provincial Auditor and to experience the practical day-to-day circumstances encountered by professionals and clients.

The Committee's evolving report methodology has also been expanded to incorporate a hands-on, "field trip approach" which takes into account the events at the client level in the delivery of government services. It endorses a dynamic, pro-active approach while considering the observations and recommendations of the Provincial Auditor. The Committee's investigation into mental health care in Ontario and forest firefighting are good examples of this approach adopted for complex audits requiring detailed site analysis and follow-up reporting.

The Committee's new procedures and approaches to increase its effectiveness and strengthen the accountability process have been beneficial. The investigation into mental health care for example has demonstrated the increasing importance of follow-up site inspections and supplementary reports. This approach has been constructive in identifying ways in which to save funds and also to identify innovations and improvements which may have broad applications beyond the particular area in which they are being used. The Committee feels that it is useful to recommend innovative practices to other divisions, branches and Ministries.

In the Auditor's 1987 Annual Report the Ministry of Health audit assessed the overall delivery of mental health care in the province. From the Auditor's perspective, the scope and objective of the audit was broad, touching on both the more formal administrative aspects and budgeting, and the evaluation of the service delivery system within the community and homes for special care.

The audit involved elements of program delivery that have a direct effect on people's lives, in contrast to the more traditional financial aspects of an audit. The evaluation of "services to the public" is difficult to quantify because it requires an assessment of program delivery and the resultant effect on the "quality of life" for segments of society. The conclusions reached by the Auditor covered, for example, the effect of substandard conditions in provincial psychiatric hospitals on patient care and stress levels for employees in the work environment; the consequences of high occupancy rates in the hospitals and the concern to move patients into the community; the inadequate monitoring of patients discharged into the community; and the shortage of community housing and support services.

The Committee visited four mental health care facilities in Ontario and the Members found the professional and support staff at the hospitals to be most open and informative. This positive exchange resulted in a very beneficial sharing of information on both the part of the Members of the Standing Committee on Public Accounts and the hospital staff. The concerns of the Auditor were discussed openly and the staff pointed out improvements and continuing problems in the mental health care system.

This "field-trip" approach accomplished several objectives in the visit to the firefighting centres and the psychiatric hospitals. The professionals and users of the services are able to discuss issues and provide information to the Members on a first-hand basis. Secondly, the facility being visited is made aware that the Standing Committee on Public Accounts is primarily concerned with ensuring that money is spent with due consideration to economy. Thirdly, the site visits provide Members with a valuable educational experience which permits them to directly experience the audit environment and to formulate recommendations in the context of the visit. Following the initial report, a follow-up report emphasizes the importance of the issues to the body being audited and the seriousness of the Committee's endeavours. Finally, the site visits may identify issues not addressed in the Auditor's report, but subjects that the Members feel require a follow-up in Committee or by the Auditor.

COMMITTEE REPORTS (1989)

In 1989 the Standing Committee on Public Accounts completed reports on ten audits prepared by the Office of the Provincial Auditor. As mentioned in the Preamble, the 1989 Annual Report of the Committee includes six reports in their entirety on the following subjects.

- Problems in Mental Health Care - Ministry of Health
  Section 4.9 of the 1987 Annual Report of the Provincial Auditor
- Government Advertising and Communication Expenditures
  Section 2.4 of the 1988 Annual Report of the Provincial Auditor
- Weak Controls Over Water and Sewage Treatment Plants, Ministry of the Environment
  Section 3.7 of the 1988 Annual Report of the Provincial Auditor
- Improved Cost Controls and Resources Monitoring Required, Forest Firefighting, Ministry of Natural Resources
  Section 3.11 of the 1988 Annual Report of the Provincial Auditor
- Improved Efficiency Required, Design Activity, Ministry of Transportation
  Section 3.13 of the 1988 Annual Report of the Provincial Auditor
- Opportunities for Cost Reductions, Municipal Roads Program, Ministry of Transportation
  Section 3.14 of the 1988 Annual Report of the Provincial Auditor

In addition to the Committee's six reports in this document, the Committee tabled two additional reports in 1989, the First and Second Interim Reports. The First Interim Report 1989, tabled in July 1989, included the Committee's response to two audits; namely, "Tax Collection, Motor Fuels and Tobacco Branch, Ministry of Revenue" and secondly "Monitoring Procedures, General Welfare Assistance Program, Ministry of Community and Social Services." These audits were included in the 1988 Annual Report of the Provincial Auditor, Sections 3.12 and 3.3 respectively.

In July 1989, the Second Interim Report 1989 on aviation and fire management in the Ministry of Natural Resources was tabled in the Legislature. A supplementary report on this audit was prepared following the Committee's site visits to forest fighting centres in North Bay, Thunder Bay and Dryden and is included in this 1989 Annual Report.

SPECIAL AUDITS

During 1989, the Committee passed three motions requesting the Provincial Auditor to conduct audits on the following subjects:

- The Ministry of Housing contract with Mr. Dino Chiesa;
- Ontario Place Corporation; and
- The Ministry of Industry, Trade and Technology's promotional book and video contract entitled "Ontario - Share the Vision."

The Provincial Auditor submitted the report on the audit on the Ministry of Housing contract with Mr. Dino Chiesa on October 10, 1989. The Committee's report on the findings of this audit are complete and will be tabled in the spring of 1990.

On December 7, 1989 the Provincial Auditor completed the special audit of Ontario Place Corporation. The Committee's report on this subject will be tabled as soon as possible.

The Committee instructed the Provincial Auditor in November 1989 to conduct an audit of the production of the book and video entitled "Ontario - Share the Vision." At the time of the finalization of this Report the audit had not been submitted to the Committee for consideration.

The hearings into the Stadium Corporation of Ontario constituted part of the on-going review of the facility. The Committee included a report entitled "Special Review of the Financing of the SkyDome Project" in the Committee's 1987-1988 Report but decided not to prepare a report at this time given that the SkyDome has not yet completed its first year of operation.

COMMITTEE HEARINGS AND VISITS

During 1989 the Committee held extensive hearings, conducted site visits to facilities in southern and northern Ontario and tabled eight reports which cover nine audit reports.

Hearings Schedule and Committee Visits

The Committee met during the months of April through December 1989 to conduct in-depth hearings, visit government facilities, meet with individuals and groups and to prepare reports.

As part of the follow-up procedure to its previous report on the problems in mental health care within the Ministry of Health, the Committee visited the Queen Street Mental Health Centre, the Hamilton Psychiatric Hospital, the North Bay Psychiatric Hospital and the Lakehead Psychiatric Hospital. A second report was prepared on the Committee's findings in 1989 and is enclosed in this Report.

In conjunction with the Committee's travel to the psychiatric facilities in Northern Ontario, the Members met with officials of the Aviation and Fire Management Centres in North Bay, Thunder Bay and Dryden, on the invitation of the Ministry of Natural Resources, to discuss the Auditor's conclusions and recommendations on improved cost controls and the requirement for resources monitoring in forest firefighting.

During the hearings on the Stadium Corporation of Ontario, the Members visited the SkyDome at the invitation of the President of SkyDome.

In total the Committee held hearings over a 35 day period, at times with both morning and afternoon sessions, excluding other meetings such as those of the Sub-committee. The Members had the opportunity to discuss the audits with numerous bodies including officials from the following:

Hearings

- Management Board of Cabinet;
- Ministry of Health;
- Ministry of Energy;
- Ministry of Tourism and Recreation;
- Ministry of Community and Social Services;
- Ministry of Revenue;
- Ministry of Natural Resources;

- Ministry of Transportation;
- Stadium Corporation of Ontario (SkyDome);
- Ministry of Housing;
- Ministry of the Environment;

Site Visits

- Hamilton Psychiatric Hospital, Ministry of Health, Hamilton;
- Queen Street Mental Health Centre, Ministry of Health, Toronto;
- North Bay Psychiatric Hospital, Ministry of Health, North Bay;
- Aviation and Fire Management Centre, Ministry of Natural Resources, North Bay;
- Aviation and Fire Management Centre, Ministry of Natural Resources, Thunder Bay;
- Lakehead Psychiatric Hospital, Ministry of Natural Resources, Thunder Bay;
- Aviation and Fire Management Centre, Ministry of Natural Resources, Dryden;
- Stadium Corporation of Ontario (SkyDome).

CONFERENCE ATTENDANCE AND VISITING DELEGATIONS

The Standing Committee on Public Accounts participated in two conferences during 1989, the Canadian Council of Public Accounts Committees' Conference and the Canadian Comprehensive Auditing Foundation Conference.

Canadian Council of Public Accounts Committees Conference

The Chairman and Committee staff attended the eleventh Annual Meeting of the Canadian Council of Public Accounts Committees (CCPAC) in Edmonton, Alberta on July 10, 11 and 12, 1989.

The business agenda included extensive discussions on the Committee activities and operation by each delegation and the review of the report entitled Guidelines for Public Accounts Committees in Canada by the CCPAC sub-committee. This document is in the draft stages and will be the subject of further discussion at the twelfth annual meeting. It covers the history and development of public accounts committees in Canada, their role, rights and responsibilities and the committee membership and meeting procedures.

Mr. Jean-Pierre Boisclair, Executive Director, Canadian Comprehensive Auditing Foundation addressed the CCPAC on the subject of Comprehensive Auditing. The Foundation is a national organization established to help strengthen management, accountability and audit in the public sector. According to the Foundation's Board, the work concentrates on ways in which managers can ensure that good value for money is obtained from their administrative practices, the manner in which they report their accountability for achieving economy, efficiency and effectiveness, and the role audit plays in that reporting.

Mr. E. Philip, MPP, the Chairman of Ontario's Standing Committee on Public Accounts, distributed a case study prepared on the basis of the Committee's work over the past two years on mental health care within the Ontario Ministry of Health. The chairman emphasized the investigative nature of the Committee's work and the importance of follow-up reviews to Committee reports. In this paper particular stress was placed on the benefits derived from site visits and the importance of being able to discuss staff concerns at the delivery level.

This year the CCPAC conference had the pleasure of input from an Australian delegation which included Mr. John Taylor, Auditor General, Australia; Mr. Kevin Madden, Deputy Auditor General, Queensland, and representatives of the New South Wales Public Accounts Committee. This delegation had the opportunity to discuss the non-partisan nature of their Committee work, the importance of on-site visits to government facilities, the fact that investigations are carried out on the Committee's initiative and finally that the need for follow-up reviews is necessary to ensure compliance.

The Canadian Comprehensive Auditing Foundation Conference

The Chairman, Members and staff attended the 10th Anniversary Conference of the Canadian Comprehensive Auditing Foundation Conference (CCAF) in Toronto on November 19-21, 1989.

This conference was particularly significant because it marked the end of the first decade in the development of comprehensive auditing in Canada. Specifically, the Conference examined different approaches to comprehensive auditing. The Foundation is now at the point at which practitioners, management and clients have several approaches to choose from in applying the concept of comprehensive auditing. The ultimate objective is to move toward more effective and accountable administration of public policy.

The Chairman had the opportunity to address delegates on the activities of the Ontario Standing Committee on Public Accounts at the session entitled "Public Accounts Committees and the Legislature - Closing the Loop on Accountability." The Chairman, Mr. Philip, discussed government accountability in Ontario, with specific reference to the document, Guidelines for a Model Public Accounts Committee in Canada. The relationship between the Office of the Provincial Auditor and the Committee was discussed with reference to follow-up procedures, special audits, and powers and responsibilities to ensure accountability by government in the use of public funds.

Visiting Delegations

In 1989 the Committee had the privilege of receiving two visiting delegations from Australia. Members of the New South Wales Public Accounts Committee who attended the Canadian Council of Public Accounts Committee attended a Committee session and the Members hosted a luncheon for the delegates. A second group from the Auditor General's Office, State of Victoria, Australia met with the Committee and also attended a Committee session at Queen's Park.

PROBLEMS IN MENTAL HEALTH CARE - MINISTRY OF HEALTH

(Section 4.9 of the 1987 Annual Report of the Provincial Auditor)

PREAMBLE

The Standing Committee on Public Accounts addressed the subject of mental health care in Ontario in 1988 and 1989 following the release of the 1987 Annual Report of the Provincial Auditor. The Committee released an interim report on May 26, 1988 in which it recommended that follow-up work be carried out, including visits to hospitals.

In 1989, the Committee met with officials from the Ministry of Health and visited four psychiatric hospitals in Ontario, namely the Hamilton Psychiatric Hospital, Queen Street Mental Health Centre, Lakehead Psychiatric Hospital and the North Bay Psychiatric Hospital. In addition, the members met with the following groups during their visits: the Canadian Mental Health Association; a Community Advisory Board (Thunder Bay); the Ontario Friends of Schizophrenics (Thunder Bay Chapter); and representatives of Alpha Court, a community mental health organization in Thunder Bay offering a case management program and supportive housing.

The Committee received a response from the Ministry of Health to its 1987-1988 Report. The Deputy Minister acknowledged the ongoing nature of the Committee's investigation and stated that the Ministry looks forward to further discussions in relation to community mental health. Mental health care is viewed as a subject of ongoing concern and the Committee may decide to visit other hospitals in Ontario in the future.

The Committee concluded that the field visits were most informative and the Members extend their appreciation to the hospital staff, associations, and officials from the Ministry of Health. The Members found the staff in the psychiatric hospitals to be highly dedicated professionals with a commitment to the mental health care system in Ontario.

INTRODUCTION

According to the Auditor's Report, 1987, the objective of the audit was to assess the adequacy of arrangements to provide and manage mental health care services. The Auditor assessed the operation of Provincial Psychiatric Hospitals, community-based services, housing and homes for Special Care (to the extent that they may have an impact on the operations of the psychiatric hospitals) and mental health care generally.

The Auditor reached several conclusions on the ten provincial psychiatric hospitals, housing and community services, and planning and coordination which will be outlined in this report. Generally, the audit pointed out that there appeared to be little scope for significant cost reductions in the operation of these hospitals. It was also concluded that funding constraints and a decreasing emphasis on institutional care had limited the growth of psychiatric hospital costs and contributed to problems with the physical plant and interior patient environment. The Auditor pointed out that while there was little scope for major cost reductions, there were areas with potential for savings and improvements. In housing and community services, the deinstitutionalization of patients has placed increasing pressure on community-based housing and supportive services. Finally, the Ministry lacked the information to effectively plan and assess the operations in both psychiatric hospitals and community mental health programs.

The Committee's First Interim Report, 1988 addressed these subjects and made several recommendations in the areas of management information systems, homes for special care, and community programs, services and housing. The Committee decided that it would conduct follow-up reviews and visits to psychiatric hospitals to assess the deficiencies identified in its investigations.

This report is based on the meeting on April 13, 1989 with the Ministry of Health officials and discussions with the professional staff at the four psychiatric hospitals, and others.

The Members had the opportunity to discuss the Ministry's ongoing work in mental health treatment in provincial psychiatric hospitals, community mental health

programs and associated agencies. As reported in the 1987-1988 Annual Report of the Ministry of Health, new information systems have been installed at the psychiatric hospitals to increase management efficiency; improvements were made to the Oak Ridge Division of the Penetanguishene Mental Health Centre and Whitby Psychiatric Hospital; increased funding was announced for community mental health services, especially in Northern Ontario, and funding contributions were made for community-based programs.

The Committee received information from the Provincial Community Mental Health Committee, chaired by Mr. Robert Graham, whose report was entitled Building Community Support for People: A Plan for Mental Health in Ontario. This material was of interest to the Committee, and provided background information during the review of the Provincial Auditor's report.

STAFFING IN PSYCHIATRIC HOSPITALS

The Auditor's report pointed out several staffing problems. The psychiatric hospitals at times have a stressful work environment; compensation arrangements have resulted in recruitment problems throughout the hospital system and particularly in the north, and the systems for planning and assessing the level of nursing resources have been inadequate. These problems were attributed to staff shortages, low pay, staff-intensive patient restraint methods, unsystematic allocation of nursing resources and inefficiencies in housekeeping and dietary services.

In the Committee's First Interim Report 1988, the Members expressed concern with the approach to staffing in the psychiatric hospitals. The Report discussed the initiatives outlined by the Ministry of Health which included modifications to the compensation system; special pay and relocation awards for certain occupations and regions; new staff training programs in patient management; and a new classification system to improve staff allocation.

The Committee's 1988 report outlined recent initiatives to address staff shortages in psychiatric hospitals, particularly in northern Ontario:

- enhanced professional enrichment programs, and affiliations between the hospitals and health science centres at the universities to improve the professional image of the hospitals;
- discussions with the medical profession on revisions to the licensure system to facilitate staffing of hard-to-fill positions;
- efforts to recruit people from remote regions into medical schools and professional schools; and
- working groups, symposia, and meetings during the past two years on recruitment and retention problems.

The Committee discussed the compensation packages in psychiatric hospitals and the absence of an independent formal arbitration procedure to address remuneration, which was lower than in the medical profession generally. The Ministry indicated in 1988 that this would be studied.

According to the Ministry, the morale problem has been attributed to the poor image of psychiatric hospitals, the high rate of recidivism and the increasingly difficult patient mix in facilities after deinstitutionalization. The Ministry's initiatives last year included pay incentives for high vacancy positions; special relocation grants, and joint labour-management forums to address problems such as stressful conditions; staff training programs to manage patients with disturbed behaviour; the development of Intensive Observation and Treatment Units; the adoption of the St. Thomas patient classification system to improve staff allocation; a review of contract management for housekeeping and dietary services in the hospitals; coordination of renovation projects between the hospitals and the Ministry of Government Services; and the establishment of a Committee in each hospital to review privacy and decor.

The Auditor recommended that the Ministry should implement a patient classification system and staffing standards for all hospitals. At the time of the audit it was noted that only one hospital had a system for staff allocation and the Ministry had been studying the St. Thomas system as a model for other hospitals.

Staff Recruitment

At the April 13, 1989 meeting of the Committee, the Ministry of Health addressed the matter of recruiting and retaining professional medical staff, which is still a major

challenge. The Ministry attributes this problem in part to the location of some of the hospitals and also the working conditions. The subject of salary settlement has now been negotiated between the government and the psychiatrists, physicians and dentists. It is hoped that this will assist in the recruitment process. The nursing shortage is still a problem in some hospitals and the Ministry has an aggressive advertising campaign to attract these professionals.

The stressful working conditions have begun to be addressed through a joint management/union forum. Furthermore, the hospitals have started training programs to assist staff in coping with extremely disturbed patient behaviour.

The image of psychiatric hospitals is being addressed through community advisory boards in the communities with hospitals. Each board has a public relations officer responsible for promoting the hospital's image as well as other community liaison responsibilities. The hospital administrators are also attempting to strengthen the facilities' affiliation with local universities from teaching and research perspectives. In an effort to maintain staff morale and professional contacts, the hospitals will develop options such as employing medical residents and shared program opportunities.

The issue of attracting professionals was raised by the Committee. Psychiatrists in the private sector often practice on a part-time basis in hospitals and the Ministry pointed out that the new retroactive agreement is acceptable to psychiatrists. The fact that it has been difficult to attract specific specialists is recognized by the Ministry and is being addressed with respect to compensation options. Other medical specialists also visit the hospitals on a sessional basis and/or on a fee-for-service arrangement.

A job audit will be conducted to get a better delineation of the roles and responsibilities of the registered nurses and attendants on the wards. Furthermore, the Ontario Public Service Employees Union (OPSEU) has agreed to again participate in the meetings of the local employee relations committee.

The Committee discussed the demand for psychiatric treatment of adolescents. The Ministry sees the issue to be one of professional training in these specialty areas.

The Council of Ontario Faculties of Medicine based its projections for residency allocations on the ratio of specialty to population using 1981-82 data. The Council is now dealing with reapportioning residency positions to address the shortages.

The nursing shortage was discussed in relation to the fact that standard nurse to patient ratios (with few exceptions) have become a subjective delineation. The patient classification system is a "national standard" of nurse staffing measurement indicators which can be audited. Six of the ten psychiatric hospitals have this system and the Queen Street Mental Health Care Centre has finished its pre-test and is developing staffing standards. The increasing need for constant patient observation staff has resulted in budget control problems according to the Ministry. The tests at the Queen Street Mental Health Care Centre are critical to the Ministry's establishing a classification system. The Ministry stated that the classification system recognizes that a patient, at a given time and location, requires a certain level of nursing services which is then measured on a time scale. This allows for flexibility in moving nursing resources to high demand areas. Other factors such as financial restraints and the decreasing use of drugs will place increasing demand on staff time.

The Committee expressed an interest in the general ability of the hospitals to staff the wards. There is an ongoing effort to determine the appropriate staffing ratios and some are of the opinion that psychiatric hospitals' staff/patient ratios are in need of adjustment upward to the level of psychiatric wards in regular hospitals.

A new staff allocation system is being developed to rationally allocate staff to patients based on a classification model. The North Bay Hospital for example participated in the St. Thomas patient classification study.

The Committee therefore recommends that:

1. **The staff allocation system should be internally evaluated at such time that it is fully operational. The Community Mental Health Branch should be involved in the assessment of this new system. The evaluation report should be submitted to the Standing Committee on Public Accounts.**

The important role of volunteers in the health system was discussed, and the Ministry pointed out the concern over the possible displacement of regular employees in this process.

The stress factor and relative compensation of staff were also discussed by the Committee. The Ministry pointed out that psychiatric nurses' wages are a matter of negotiation by their union. The compensation for stress factors and under-staffing was discussed in relation to a heavy turnover. The Ministry views turnover in Toronto to be a problem for all hospitals. However, it saw the working environment, job satisfaction, continuing education and salary to be problems. The Ministry stated that it is addressing these matters.

The Ministry's difficulty in attracting professionals has been addressed through the Underserviced Area Program and the funding of comprehensive community programs. Adolescent problems, including the concerns over suicide, have been addressed through community funding in northern centres as well as in multicultural programs in southern Ontario.

The Committee raised the subject of correctional attitude or approach within the hospitals and the Deputy Minister explained that this approach, which is almost custodial rather than therapeutic and healing, has been the subject of meetings with the Ontario Public Service Employees Union.

The staff problems were evident in the Committee's trip to hospitals in northern and southern Ontario. Although salary incentives are being used in psychiatric hospitals, the competition for health care professionals in Ontario continues to place staffing burdens on psychiatric facilities. The Members have concluded that in some instances professionals generally prefer community work over institutions in central and southern Ontario locations.

The Committee therefore recommends that:

2. **The Ministry of Health should review the employment packages, including pay scales for professionals within the health system, to determine whether psychiatric hospital employees receive comparatively similar remuneration with other hospital professionals, taking into account the current incentive programs and the unique demands of health care required in psychiatric hospitals.**

The Committee has discussed the need to attract and encourage health care specialists to stay in the north. This could be done through student placement and programs to attract recent immigrants and new graduates. The Members recognize the complexities of this problem and feel that a wide range of options should continue to be pursued. The Ministry has been successful in attracting local professionals to practice in the hospitals on a part-time basis. The psychiatric hospitals must be portrayed positively as a viable place to work on a full-time basis, offering appropriate benefits and attractive career paths.

The Members are of the opinion that the hiring of professionals in psychiatric hospitals requires special attention. Innovative alternatives are required to attract professional staff and to support practicing professionals in the medical environment, including research, in northern psychiatric hospitals. Association with universities in southern Ontario with psychiatry faculties is important to professional development. Incentives, professional affiliations and work exchange programs are options which may be considered again to attract professional staff.

The Committee therefore recommends that:

3. **The Ministry of Health should discuss new options to attract medical professionals to northern Ontario in conjunction with input from the various professional associations. For example, students could be placed in northern psychiatric hospitals as part of their training, with commensurate incentives.**

The image or stigma surrounding mental health care and psychiatric hospitals was discussed during the Committee's hearings and hospital visits. The Members are of the opinion that this problem should continue to be addressed, possibly through the renaming of institutions and using vacant wards for other purposes such as the Victorian Order of Nurses, Red Cross or District Health Councils.

The Committee therefore recommends that:

4. **Psychiatric hospitals and community mental health care facilities and programs should continue to address the image problem on a community-wide basis through workshop groups, professional associations, local community health interest groups and other interested parties.**

The Auditor raised the issue of the utilization of facilities and the appropriateness of patient mix in the hospitals. These issues were discussed in the context of establishing alternatives to hospitalization and the patient competency debate. The Ministry explained in the 1989 hearings that several initiatives are underway to address these problems, for example the Weisstub Inquiry discussed below.

Patient Restraint

It was pointed out in the audit that patient restraint was an area with potential for savings and improvements. The Auditor stated that the increasing use of patient restraints, confinement, and one-to-one observation are very costly and reference was made to an innovative approach at Whitby (the self-contained Intensive Observation and Treatment Unit) which has reduced the staff and resources required to monitor patients under restraint. The Ministry is encouraging this approach, but it is in part dependent on funding for renovations.

The subject of structural changes to assist in the supervision of patients, for example in the design of nursing stations and the use of monitoring cameras, was discussed. Whitby has used the observation unit alternative to achieve a more economical approach to treatment. The Ministry outlined the various options being pursued for intensive observation treatment in the system and the Committee expressed an interest in how these various options could be assessed on a cost-benefit basis and whether there is a centralized plan. The Ministry responded that in many instances it will be more economical to replace facilities rather than to renovate.

The Members pursued the matter of quality of care and restraint. The patients are not in restraint for a long period and various options such as the six-bed unit at Whitby are being assessed. The Weisstub Inquiry is investigating when an individual is declared to be a danger to themselves and others, and also when an individual is to be declared

incompetent for purposes of making decisions about whether or not medication is required. A second study by Mr. Starkman is underway to address substitute decision-making.

Warrants of the Lieutenant Governor

The Ministry of Health's Encon Report on risk management systems for patients on warrants of the Lieutenant Governor was released in 1988. It was decided that the Ministry would address six recommendations in the Report dealing with policies and procedures to strengthen the existing system for managing these patients in psychiatric hospitals. The remaining recommendations will be considered by an interministerial group.

The Ministry is attempting to develop consistency for the terms of the warrants to assist the problem of interpretation for community privileges, etc. Specialists are currently assessing patients clinically against privilege levels. The management process for Lieutenant Governor Warrant (LGW) patients is under review and a management information system is being established to track these patients. The proposed bed registry system will help to identify available spaces to assist in the allocation of patients.

On the subject of security, the Ministry has started construction of the $4 million activity complex at Oak Ridge and the Ontario Public Service Employees Union has agreed to establish a joint committee to address security matters.

The matter of inmates in the prisons awaiting psychiatric assessment was raised by the Committee. The Ministry is aware of this situation and is proceeding with the construction of secure units in hospitals. Furthermore, a coordinated approach is being developed for the management of forensic patients in conjunction with the Ministries of Community and Social Services, the Attorney General, the Solicitor General and Correctional Services.

In response to the events involving psychiatric patients in Brockville in 1989, an investigation was conducted by the Ministry into the operation of this forensic unit. Operational difficulties were identified which resulted in a consultant being retained to

conduct an operational review of the hospital, including the forensic ward. A forensic psychiatrist examined some of the LGW patients and their privileges in the hospital and community. A forensic specialist has been asked to assess the forensic ward proper and the administrator on duty at the time of the two incidents has been replaced.

The recidivism rate among LGW patients is relatively low according to the Ministry. This rate is higher for LGW patients in the hospitals than for these patients living in the community. The Members pursued the progression of LGW patients through the system, from high to less secure units over a two to twelve year period with ongoing treatment. The Ministry recognizes the difficult challenge of accurately predicting the behaviour of patients as they are rehabilitated and gain access to the community.

Following the Committee's visits to the psychiatric hospitals, it was concluded that the LGW patients are a unique group within the system and that staff training may not be appropriate in all cases to care effectively for them. In some instances these patients are seen as a threat to both the hospital staff and to other patients. In the opinion of the Committee, the operation of forensic units in psychiatric hospitals deserves special care to ensure the safety of patients and staff and the integration of forensic patients with other psychiatric patients requires special precautions. Ideally, forensic patients should not be grouped with other patients. This problem is partly due to a lack of funding to set up separate wards. These patients could be moved out of their communities and to appropriate wards in other hospitals, but they would be isolated from family and their advisors, which is not an ideal solution.

Members of the Committee are concerned about violations of warrants. The recommendations and implementation of the Encon Report will continue to be of interest to the Members, and the Committee may decide to address progress in this area in the future through site visits.

PLANNING AND COORDINATION OF INFORMATION SYSTEMS

The Auditor's report concluded that the Ministry lacked the necessary information to plan effectively and assess the operations of both psychiatric hospitals and community mental health programs. The Auditor acknowledged that improvements were

underway. Several problems were identified including the limited use of available information on causes of patient readmission and referral services; unreliable statistics on outpatient services due to inconsistent definition and monitoring of these services; absence of comparisons among the hospitals with regard to cost comparisons; and the lack of a system to gather and analyze information on the need for or utilization of community-based services.

In 1988, the Ministry stated that a management information system in each hospital was being developed, although these internal systems are not integrated and do not track patient movement. The Ministry acknowledged the importance of this capability in the development of an integrated community care system and stated that it was being addressed.

The Committee's report in 1988 pointed out that a reliable comprehensive client-based management information system is essential to the establishment and operation of an effective and integrated mental health care system. The Members recommended that the existing management information system in the hospitals be upgraded to permit the integration of information within the hospital system and that the Ministry pursue the completion of this system.

In the Committee's discussion with the Ministry staff in 1989 it was pointed out that a computerized management information system had recently been introduced in the hospitals to integrate admission, discharge and transfer data with financial management information, inventory control and pharmacy data. This data collection system and analysis permits a comparison of information among the hospitals. The Ministry has set up a committee to examine the ongoing management information needs of the hospitals for integration with this computer system. One objective is to produce comparative and hospital-unique information to promote quality assurance and monitoring of return patients.

During the hearings in 1989, the Committee was interested in the progress made on the information systems in each hospital and assessments of programs at the community level. The Committee expressed the opinion that the computerized statistical system will become progressively more important the more decentralized the health care system becomes. An information system on the patient-care side, addressing recidivism, length of time in the community and the level of support, is not available

according to the Ministry. A pilot study in Scarborough is being conducted to assess a central information system which will track an individual patient as opposed to a general medical problem for purposes of planning resources. The Deputy Minister added further that it may be possible in the future to monitor the effectiveness of the comprehensive system available to the patient, to determine the rate of reinstitutionalization by region and institution and compare the average length of stay, but not for the individual patient.

The Auditor concluded in the 1987 Annual Report that there was not an accurate and reliable system to estimate the potential extent of the demand for new community mental health services. It was therefore difficult to locate future facilities and services on the basis of most critical need. In addition, the Ministry needed more information about the effectiveness of the community-based services it has funded.

In considering planning and information services, the Committee discussed the movement of patients through the system and expressed concern about return patients to hospitals due in part to inadequate monitoring or tracking. Patients who have left the system would not be able to adhere to prescribed medication and rehabilitative services.

The Committee therefore recommends that:

5. **A patient monitoring system is required to ensure that deinstitutionalized patients receive follow-up care and medication at the community level. This would help to ensure the safety of the patient and monitor patient adjustment and progress, which is similar in principle to the public health care system approach.**

Difficulties in following up on patients once they leave the hospital are evident throughout the system. This is in part because of geographical distances from hospitals, particularly in the north, and patients referred to a community program may decide not to pursue treatment.

Aboriginal Peoples

Aboriginal peoples have distinct concerns and needs within the mental health care system, which include access problems and the necessity to take into account unique customs and values at the family and community levels. The Members acknowledge the importance of such factors in the delivery of mental health care services.

The Report of the Scott McKay Bain Health Panel entitled From Here to There: Steps along the Way is a review of health services in the Sioux Lookout Zone in Ontario. The objective of the review is to improve and promote health among the residents of the Sioux Lookout Zone. In this effort the panel specifically addressed the general physical, dental, mental/spiritual and community health of the aboriginal peoples of the area. In addition, perceptions of health, the health care system and the matter of community responsibility were discussed. Although this Report was not addressed by the Committee and was not the subject of the audit, the Members acknowledge the efforts of non-government groups and individuals in the promotion of mental health care.

The Ministry has initiated community programs in response to some of these concerns. The Committee expressed the view that forensic services, for example, could be assessed in consultation with aboriginal peoples to ensure that cultural factors are taken into account on a consistent basis at both the community level and in the psychiatric hospitals. Ensuring that a patient can remain in a facility in close proximity to his/her home, relations and legal counsel can also assist in the rehabilitation process.

This process may be assisted as more aboriginal peoples enter professional fields in Ontario such as law and medicine. The Committee notes these challenges in aboriginal communities and supports a pro-active approach to mental health care for all individuals in Ontario.

HOSPITAL FACILITIES/SERVICES

As pointed out in the audit, many of the psychiatric hospitals are old and the facilities are below the national standards for general hospitals. The wards were not sufficiently private according to the Auditor and the methods of providing and managing dietary and housekeeping services were weak. The Ministry had conducted studies prior to the audit which identified deficiencies and possibilities for staffing economies and improved services in the housekeeping and dietary fields. The Ministry studied contract management services options for the ten hospitals at the time.

The physical facilities presented additional problems such as crowding, lack of patient privacy in the washroom facilities, temperature control and ventilation. The Ministry's Whitby Hospital redevelopment program, to be completed in the mid 1990s, is viewed as a model for future hospital redevelopment.

In 1989 the Ministry updated the Committee on the physical condition of the hospitals. The Ministry of Health identified a number of improvements needed in the hospitals and submitted its findings to the Ministry of Government Services. An activity centre is being constructed at Oak Ridge, and the Whitby Psychiatric Hospital will be completely redeveloped over the next five years. The hospitals are responsible for their own minor internal renovations for patient comfort.

The Ministry has retained outside consultants to conduct operational reviews for several hospitals in fiscal 1988-1989 and 1989-1990. These reviews have been helpful in assessing the utilization of resources and management practices. The hospitals under study have a steering committee to oversee the implementation of recommendations.

The Ministry explained that renovations are priorized within the institution and major projects are the responsibility of the Ministry of Government Services. The Deputy Minister pointed out that the psychiatric hospitals have not achieved the standards of the physical facilities of the public hospitals generally.

The Ministry regularly submits its priority list for improvements to the Ministry of Government Services. During the visit to the Lakehead Psychiatric Hospital the Committee noted the substantial improvements due to renovations and upgrading of the physical facilities. This information on improvements was requested from the Assistant Administrator of Support Services. The history of the process outlined the washroom renovations and redecorating; formation of the Community Advisory Board; the Patient Care Standards Study; and the Operational Review. During the 1987-1988 period clinical departments were centralized and wards were relocated and renovated during 1987-1989. Improvements to the psychiatric wards included

painting and wall printing; the purchase of pictures; stereo and television systems; curb and floor renovations; the installation of non-slip flooring in the shower areas, and lighting improvements, etc., for a total cost of $27,150. An additional $162,000 was allocated to washroom renovations for a total of $189,150 and a further $78,000 was spent to furnish three psycho-geriatric wards over a one-year period. The report on these expenditures stated that the upgrading program was made possible through a transfer of unspent funds to the maintenance budget on the authorization of the Psychiatric Hospitals Branch, Ministry of Health.

The Committee therefore recommends that:

6. **Psychiatric hospitals in general should note the interior improvements made in those hospitals visited by the Committee. For example, the Lakehead Psychiatric Hospital achieved cost-effective improvements to the interior hospital environment through painting, carpeting and furnishings, etc. which have contributed to an enhanced living environment and the morale of patients, staff and visitors.**

The Members expressed concern for the lack of recreational facilities in the psychiatric hospitals visited.

The Committee therefore recommends that:

7. **The Ministry of Health should consider enhancing recreational programs and providing new recreational facilities for the patients in psychiatric hospitals.**

The Ministry allocates approximately 3.5 percent of the total budget to each hospital for minor repairs such as painting and limited internal renovations. The Deputy Minister agreed with a Member's comment that even in an old facility, minor renovations can be relatively inexpensive, but are effective in improving the hospital environment generally.

The Committee expressed concern over the apparent differing standard of treatment received by psychiatric hospitals as compared to regular hospitals. The Ministry has recently responded to this issue by attempting to change the way in which the Psychiatric Hospitals Branch is organized in the Ministry.

This Branch is now integrated into the overall hospital system in the Ministry, under the same assistant deputy minister and capital planning branch. The Deputy Minister stated that "there ought not to be any reason why the physical facilities available for psychiatric patients should be of any lesser or greater or different standard than they are for any other; that is, they ought to be appropriate to the needs of the patient."

COMMUNITY HOUSING, PROGRAMS AND SERVICES

The Audit addressed areas in which there were possibilities for cost reductions, including community housing, and pointed out that approximately 25 percent of current patients would not have to reside in psychiatric hospitals if adequate housing and support facilities were available. Problems have arisen in relocating psycho-geriatric patients to suitable extended care facilities due to the shortage of such facilities and a general reluctance on the part of operators to accept this group. The shortage of adequate housing and services has contributed to readmissions and high occupancy rates in the hospitals.

The audit found that many ex-psychiatric patients lived in unsuitable boarding homes. These facilities did not have rehabilitation programs; the licensing procedures for these homes had resulted in inconsistencies and violations; and although supportive housing units and community-based programs and services had been improved the demand had not been fully met.

The Committee discussion in 1988 on homes for special care concentrated on the violations of licensing requirements and the lack of rehabilitation programs for residents. The violations were reported to be of a minor nature according to the Ministry and these problems were addressed. The Ministry also pointed out that community programs were being developed for these residents and that funding for programs had been requested. The Members commended the Ministry for its initiatives in the development of these programs. On the matter of license renewals the Committee recommended that the Ministry review its licensing requirements to determine the appropriateness of the standards and the renewal procedures to identify ways in which to reduce infractions.

The Ministry identified the initiatives taken to address these problems. Funds were made available in 1986 in the Boarding House Contract Program to upgrade these

homes and The Metro Habitat Program was set up 1986 to provide a per diem payment to Toronto boarding houses which maintained certain standards. The Committee was of the opinion that the complexity of this problem required a joint approach including the Ministries responsible for mental health patients, the disabled, the developmentally handicapped, the elderly and the Ministries of Housing and Municipal Affairs.

The Ministry of Health places a high priority on developing integrated services to enable patients to move from each type and level of care, although the transition from institutional care to the community or to other jurisdictions is not always without problems. The Ministry stated in 1988 that it is emphasizing expanded community programs with the assistance of other ministries or community groups. Ministry initiatives in 1988 included pilot projects involving integrated models of community housing and programs such as the Whitby project. The Canadian Mental Health Association has been active in a public information initiative to reduce the stigma of mental illness, contributing to greater community acceptance.

In response to the Auditor's reference to the community outreach programs, the Ministry explained in the April, 1989 hearings that a number of psychiatric hospitals are currently enhancing these programs in areas where services are not readily available in the community such as downtown clinics and geriatric outreach programs.

The Committee's interest in supportive housing was addressed by the Ministry in an elaboration on the existing Project 3000. It was established for special needs groups including ex-psychiatric patients who were to receive approximately one-third of these new units. The Ministry pointed out that the pilot project in Whitby included the development of supportive housing units with a model of programs and services for an integrated and comprehensive approach to community mental health case.

The Committee expressed the opinion in its 1988 report that the needs of ex-psychiatric patients were largely not met in supportive housing. The Members recommended at the time that the Ministry should have adequate capabilities to evaluate these initiatives to ensure that the maximum impact is attained in meeting mental health care needs in supportive housing, community programs and services.

In conclusion, the Committee recommended that community housing, programs and services warranted further legislative review and investigation.

The Auditor's report discussed the shortage of good quality, affordable housing. Most housing does not offer rehabilitation therapy although the Ministry has started to address these problems. Residential care homes are not ideal because they are not required to offer support services in all cases.

In addition to the housing problems, the audit identified the shortage of community mental health services, although funding has been increased for housing, workshops and clinics. Proposals for alternatives to treatment in psychiatric hospitals were discussed, including a crisis intervention centre and the issue of patient competency. The Committee supported the progress made on these two subjects and encouraged further action on the crisis intervention centre and the definition of competency by the Weisstub Inquiry. This study's terms of reference have been broadened according to the Psychiatric Hospitals Branch to include children and adolescents. It will now be due in early 1990, rather than in November 1989.

In discussions on the noninstitutional aspect of mental health care and the budgetary process, the Ministry explained that every effort is made to develop a balance between the institutional and community expenditures. The expenditures for 1988-1989 for community mental health care were $83.4M (and an additional $36.8M for the Alcohol and Drug Dependency Program) and $349.9M for institutional care in the psychiatric hospitals. Also the Committee was interested in the percentage of the community mental health patients that have never been institutionalized; but this statistical information has not been recorded according to the Ministry. One of the Ministry's objectives from the point of view of patient welfare and the total number served is not to over-emphasize the institutional side of the equation. The Deputy Minister discussed the challenges in the transition of the patient from the institution to the community given the complexities of rehabilitation. Placement into the community requires supervision and a constant support system although not all communities are willing to accept patients. The Members addressed the challenge of encouraging the community to accept former patients and the associated legal, social and planning issues raised in this debate.

The hospitals have community advisory boards which undertake to address the image of these institutions at the community level. According to the Deputy Minister, the staff has worked closely with the Canadian Mental Health Association (CMHA) to improve the image and public attitude toward the mental health care system. The stigma of this illness continues to be a main obstacle to patient reintegration into the community. The Committee recognizes the importance of the community health care system for ex-psychiatric patients following deinstitutionalization. The community programs are essential to assist people in making the transition to normal lives both in centres with and without psychiatric hospitals.

The Committee therefore recommends that:

8. **The psychiatric hospitals should continue to assist in the development of a community support system in their communities with a positive image of the hospital as an integral part of the community.**

The Members acknowledge the ongoing involvement of individual volunteers and associations in community programs and in the deinstitutionalization process. The formal hospital outreach programs should not be seen as a replacement for community programs.

The Committee therefore recommends that:

9. **The community programs should provide discreet assistance in contrast to the institutional approach of hospitals. The community-based programs such as craft shops and drop-in centres should be integrated with the support/interest groups and their efforts in fields such as community housing.**

The Committee has acknowledged the Ministry's initiatives in the development of programs for the residents of special care homes. According to the Community Mental Health Branch, the programs for deinstitutionalized patients in special care homes are monitored through procedures to ensure that appropriate resources and activities for rehabilitation are available. Furthermore, the Ministry monitors the licensing of homes to ensure compliance with respect to public health and fire standards, etc.

The Committee therefore recommends that:

10. **Community housing establishments should be encouraged to consistently provide quality shelter as well as a protective and supportive patient environment, with a full range of services, in compliance with provincial regulations for health and safety.**

The challenge to provide suitable housing in the community is complicated at times by opposition at the municipal level. The local planning process can be used to facilitate the development of community housing in residential areas rather than in industrial zones through policy guidelines and zoning approval procedures. Current policy requires that 25 percent of new housing units including infill, redevelopment and conversions will meet the requirements of affordable housing. This policy applies to all Ontario municipalities, although some have been designated as a first priority. The smaller, less densely populated municipalities, for example in rural areas, similarly must demonstrate due regard for this policy and comply with the requirements through a gradual application. This approach will respect the slower rates of development and availability of resources in small communities and rural areas in Ontario.

The Committee discussed various options for developing housing to assist in the deinstitutionalization process. The Members were in agreement that patients should be integrated into the community and that housing in a peripheral urban location is not appropriate. The Ministry of Housing could be instrumental in the development of this housing as an integral component in the community with other housing schemes such as non-profit housing.

The Committee therefore recommends that:

11. **The provincial planning process should require municipalities to have a policy on community housing in the official plan and in the zoning by-laws.**

The Committee is encouraged by the fact that increasingly more patients could be deinstitutionalized if the housing was available.

The Committee therefore recommends that:

12. **The Ministries of Health and Housing should evaluate the possibility of developing lands surrounding psychiatric hospitals for ex-patients' "community housing", with the option of including non-profit and other housing programs.**

The psychiatric hospitals are seen largely as the initial step in the rehabilitation process with the patient progressing ultimately to community homes. The Committee was interested in the treatment of "heavy-care patients" in the process.

The Committee therefore recommends that:

13. **The longterm geriatric patients should preferably be in a non-institutional and a more humane home environment which should offer services for "heavy-care patients". The psychiatric hospitals should be used primarily for those patients most in need of institutional services and for those who cannot be deinstitutionalized.**

According to the North Bay Psychiatric Hospital officials, in 1989 approximately 25 percent of the hospital patients could be living in the community if housing was available. A full range of housing is needed offering dietary and support services. The Official Plan and Zoning By-laws for the City of North Bay, for example, have a policy and regulations for group homes such as "high level support housing" sponsored by CMHA. The municipal planning process does not distinguish specifically among client groups. CMHA has encouraged housing with comprehensive support services, whereas private boarding homes have not consistently achieved this necessary support level. The Members recognize the complex nature of deinstitutionalization and the challenge of rehabilitation. The Committee suggests that on an ongoing basis the Ministries of Community and Social Services, Health and Housing may consider alternative options such as foster care to assist in housing ex-patients.

LEGISLATIVE REVIEW

The Committee concluded in 1988 that the complex and multi-jurisdictional problems of community mental health programs, services and housing identified by the Auditor merit further legislative review and investigation. The Committee noted the diffusion of responsibility for the clientele and conditions of boarding and rooming houses, and the unacceptable quality of life for the residents in many such houses. The Committee has decided to reiterate the following recommendation from its First Interim Report (1988).

The Committee therefore recommends that:

14. **The Social Development Committee of the Legislative Assembly should consider undertaking a comprehensive study of the housing and other community and health needs of ex-psychiatric patients, the adequacy of current and planned housing and services to meet these needs, and options to overcome any identified deficiencies.**

GOVERNMENT ADVERTISING AND COMMUNICATION EXPENDITURES

Section 2.4 of the
1988 Annual Report of the Provincial Auditor

PREAMBLE

Government advertising and communication expenditures in selected Ministries were audited by the Provincial Auditor and reported in the 1988 Annual Report. On April 11 and 12, 1989, the following government officials appeared before the Standing Committee on Public Accounts to discuss the audits and specific interests of the Members: from the Management Board of Cabinet, the Secretary, the Chairman of the Advertising Review Board, the General Manager of the Advertising Review Board and the Executive Coordinator, Management Policy Division; from the Ministry of Energy, the Deputy Minister and the Director of the Finance and Administration Branch; and from the Ministry of Tourism and Recreation, the Deputy Minister, the Assistant Deputy Minister of Tourism and the Director of Tourism Marketing Branch.

The Committee concentrated on the Management Board of Cabinet and the Ministry of Energy audits in this Report, although the Members may decide in the future to pursue the issues discussed with the Ministry of Tourism and Recreation or to request hearings with the other Ministries audited in Section 2.4 of the 1988 Annual Report.

INTRODUCTION

The Auditor prepared audits on the management and advertising and communications expenditures in the Ministries of Agriculture and Food, Tourism and Recreation, Energy, the Environment, Housing and the Management Board Secretariat. This Report has focused on the Management Board Secretariat and the Ministry of Energy.

The Management Board Secretariat provides advice to the Management Board of Cabinet on the financial and administrative aspects of Ministry proposals, coordinates the preparation of the estimates, and develops and disseminates information on administrative policies. The Ministry of Energy is responsible for provincial energy policy and coordinates energy activities.

A Ministry's advertising agency manages the creative and production aspects of advertisements. Media space and time purchases in newspapers, radio, television, etc. are administered through the Government (Agencies of Record).

The Provincial Auditor's 1988 Annual Report addressed whether goods or services were acquired with due regard for economy and, secondly, if adequate systems were in place to evaluate the results of advertising projects. The Provincial Auditor made the following observations on the subject. In general, it was concluded that advertising goods and services were acquired with insufficient regard for economy. In particular, a widespread disregard for administrative documentation that would justify the reasonableness of the costs incurred and numerous instances of excessive costs and questionable expenditures were noted. Adequate systems to evaluate the results of advertising projects were generally lacking.

Furthermore, the Auditor pointed out that these problems in government advertising and communication expenditures are not limited cases, but that they were evident in several ministries at the time of the audit.

According to the audits, the Ministry of Energy and the Management Board Secretariat acquired advertising goods and services with insufficient regard for economy. As pointed out in the 1988 Annual Report, many of the expenditures reviewed did not demonstrate that the Ministry and Secretariat had received value for money. The Auditor concluded generally that the systems were not adequate to evaluate the output

of advertising projects. Nevertheless, the Ministry of Energy showed evidence of monitoring certain results in project evaluation. Finally, while advertising agencies were competitively selected in the Management Board Secretariat, the documentation was inadequate.

DUE REGARD FOR ECONOMY

The Committee discussed and reported on the subject of "due regard for economy" with the Management Board Secretariat and the Ministry of Energy. The Auditor's discussion of the evidence of insufficient regard for economy and the absence of value for money were demonstrated in the following examples listed in the 1988 Annual Report: competitive selection procedures were not followed for subcontracted goods and services; estimates and invoices were not supported with adequate detail; excessive costs were incurred; and questionable expenditures were made.

Advertising agency fees are established, in part, as a percentage of total production costs and, according to the Auditor, Ministry controls are important to control costs incurred by the agency. The Auditor identified common inadequacies in management control.

Ministry of Energy

The Ministry developed a play and later a film entitled "The Conserving Kingdom" for educational purposes in 1984, with the intent of promoting energy conservation at the primary school level. The production cost for the play (French and English) over three years was $1 million (approximately). The film version was made to reduce costs and broaden the audience.

To arrange production of the film, the Ministry prepared the terms of reference and selected a firm. The Committee had concerns with the cost increases and the extension required beyond the original agreement. To arrange film distribution and promotion, the Ontario Film Development Corporation (OFDC) prepared a list of potential distributors although the firm selected was not on this list. The "Terms of Reference" were sent to five firms and only one proposal was received from the firm that produced the film. The firm selected did not have experience in film distribution and promotion and the Ministry had an existing contract with another firm which distributed product for $10.00 per film.

A two year distribution/promotion agreement was set up with the company that produced the film. The two year contract agreement was for a maximum of $245,000 or an estimated $76.00 per film distributed. The total fee was paid during the first year of the contract, and the contract limit was increased by $50,000 for distribution. According to the Auditor, invoices were approved for payment without a Ministry verification of the actual number of films distributed and expenses incurred. The contractor's distribution records indicated little correlation between actual costs and amounts billed to the Government. The distribution firm stated that there was never any attempt to invoice on the basis of services provided or on actual costs. The number and cost of copies of the film became an issue and the promotion of the film incurred extra costs in travel to the U.S. and Europe.

The Ministry confirmed the Auditor's concerns about the film production records and accounts discrepancies. The Ministry's written response stated that after consulting with the Ministry legal staff, negotiations were conducted to adjust all outstanding invoices with the contractor to reflect the audit results. The negotiations resulted in the reduction of the final invoice to the contractor by the nominal amount of $5,000. The Ministry arranged for TV Ontario to assume the distribution of the film.

The Deputy Minister identified several problems in discussion with the Committee: the management of the tendering process, the unclear objectives of the film managers and the inability of the contract firm to provide accurate records. The Deputy Minster pointed out that some decisions could not be justified and that they were based on a judgement call.

The Ministry explained that this type of educational communication project is best handled by professional organizations and not by government unless there is a specialized group with this expertise. The problem resulted largely because of fragmented accountability in communications in the Ministry, according to the Deputy Minister. The Ministry has responded to this problem by taking the communication responsibility, including the budget, and placing it back in the Corporate Relations Branch. A professional communications manager was hired to assume responsibility and accountability for budgeting.

The Ministry's creative and innovative personnel in communications are now in the corporate relations division. The program personnel, responsible for the substance of the message, are in the policy and program areas. This two-key system ensures the

accountability for expenditures in corporate relations, according to the Ministry. The distribution and promotions will be addressed by communications.

The Committee noted the initiatives made by the Ministry in the restructuring of the communications group, including the development of a new strategic approach to meet the Auditor's concerns in areas such as program distribution.

The Committee, therefore, recommends that:

15. **When the reorganization of the Ministry's communications group is completed and implemented, the Ministry should conduct an internal audit of a completed advertising project to determine whether the problems as identified by the Auditor have been resolved. (Reference: R-2000 Program/Recommendation No. 7)**

The Ministry pointed out the importance of the communications component over the next two decades. The Select Committee on Energy (1989) and the Energy Choices conference are two mechanisms already in place to address the challenge. The communications priorities will be centralized in the Ministry in its dealings with other Ministries, Ontario Hydro and the general public, including interest groups.

The Committee, therefore, recommends that:

16. **The recommendations of the Select Committee on Energy (1989) should be addressed, particularly public education on the subject of demand management.**

Management Board Secretariat

The Committee is of the opinion that the Management Board Secretariat should have a major role in supervising and enhancing the efficiency of the internal audit process across government. The Management Board Secretariat could assume a broader supervisory role to ensure that the internal audit mechanism is functioning correctly and effectively within the ministries, conducting an evaluation of the internal audit process, thereby ensuring a comprehensive evaluation of contracts. The Committee, nevertheless, supports the existing internal audit process within each Ministry, which addresses financial and management controls. As pointed out by the Secretariat, once the advertising agency is selected, the value for money assessment would be the

responsibility of the ministry hiring the firm. The Secretariat does not review the advertising firms at the invoice level or on day to day operations. The Ministry and the advertising agency work in a partnership arrangement after the selection. Ministry management practices review these contracts through the internal audit process, but not regularly. It is not an audit responsibility but rather a management responsibility to oversee these advertising contracts.

The Committee is of the opinion that the Secretariat could provide on overarching role to monitor these contracts without having the responsibility completely for management and the audit process within the ministries.

The Committee, therefore, recommends that:

17. **The Management Board Secretariat should assume a major role in coordinating advertising and communication contracts in ministries and agencies, thereby promoting economic efficiency through precise objectives and efficient management practices.**

Secondly, advertising in ethnic publications is conducted through the Government Information/Communication Program. This Program was established to support rural and suburban weekly newspapers as well as the ethnic media in Ontario with paid informational advertising.

The ethnic advertising planning guide listed 202 publications at the time of the audit. Ethnic advertisements account for 50 percent (approximately) of the Board's total advertising expenditures. The Members of the Committee recognize the importance of offering government assistance to minority groups through various ethnic programs. At the same time the use of these funds must be monitored to ensure value for money and therefore compliance with government standards. The Management Board Secretariat reviews the use of certain publications which, because of their relatively high rates and low circulations may not be cost effective. The Provincial Auditor suggested that it may be more economical to negotiate ethnic media rates to obtain a more consistent and competitive cost relative to circulation.

The Advertising Review Board monitors government advertising policies and has set eligibility to ensure cost effective government ethnic media purchases. Guidelines require that the publisher must provide the printer's invoice and supporting

documentation for the purposes of circulation/cost analysis. This was not done in some cases and therefore the Secretariat circulated a questionnaire to acquire the necessary statistics. The Auditor was of the opinion that eligibility to receive Ontario Government advertisements should be based on compliance with the guidelines and secondly that documentation should be submitted, such as the number of copies printed and the actual circulation figures.

Circulation/cost analysis, which assess advertisement rates based on circulation, was not possible. In response the Board circulated a questionnaire in 1987. The Auditor pointed out the significance of compliance with the guidelines and noted that information on printed and circulated copies is relevant to eligibility. The Secretariat clarified this problem in stating that all but 16 ethnic papers have now filed and that those with incomplete records are not receiving government advertisements through the Board.

The Secretariat explained in response to the audit that ethnic newspapers cannot be measured in terms of cost efficiency on the same basis as English language newspapers, whose advertising cost per thousand are proportionately lower due to their mass circulation. It is necessary in the case of ethnic communications to use all publications available to a language group, in order to effectively reach a majority of people in that group.

The Committee is of the opinion that the ethnic media fulfills an important role in Ontario. It is difficult to evaluate the benefit of these papers on a cost effective basis and the Committee expressed the opinion that this cannot be the primary form of evaluation. The Management Board Secretariat outlined the policy to the Committee to place advertisements in as many ethnic publications as possible to communicate with the ethnic community. This policy has not been altered and, as the Secretariat explained, the associated costs are the premiums paid to communicate via ethnic communications.

Media invoices were discussed in the audit and it was pointed out that some ethnic groups had a disproportionate number of publications compared to their provincial population. The media rates for publications were inconsistent in some cases. For example, the average cost of an advertisement per group ranged from $53 - $125 per

1,000 copies circulated for a 600-line advertisement. The Secretariat reviews the use of certain publications which, because of their relatively high rates and low circulations may not be cost effective. The Auditor suggested that it may be more economical to negotiate ethnic media rates to obtain a more consistent and competitive cost relative to circulation.

The Secretariat pointed out that action had been taken on this recommendation. The Secretariat has refused to accept excessively high advertisement rates as an initial step in addressing this problem. Furthermore, the Committee concluded that the rates should be negotiated in a standardized manner to ensure a competitive cost structure.

The Committee, therefore, recommends that:

> 18. **In an effort to ensure cost effectiveness in publications, ethnic media rates should be negotiated and standardized in order to establish a competitive cost structure in comparison with other circulation budgets in the industry.**

The Secretariat explained that there is a system of "checks and balances" in the purchasing of advertising. The Agency of Record places the advertisements for the Ministry following the preparation of the creative work at the advertising agency level with the Ministry. The Secretariat feels that this process helps to ensure the best purchase. Furthermore, the Secretariat consults with the ministries annually to assess the purchasing of advertisements and the levels of spending.

The Committee notes the steps taken to correct the problems identified in the audit. In addition, the Members recognize the importance of establishing standards against which the Government's involvement in the ethnic media can be evaluated.

The Committee, therefore, recommends that:

> 19. **In conjunction with the eligibility guidelines for government media purchases, standards should be developed through which Government support for the ethnic media could be monitored and evaluated.**

PROJECT EVALUATION

The Auditor noted evidence of results monitoring, although it was concluded in the audit that adequate systems were lacking to evaluate the results of advertising projects.

Ministry of Energy

The Federal R-2000 energy efficient housing program (1980) cost the Ministry approximately $3 million in builders' training, television and print materials. The Ministry informed the Auditor that the program was used to stress benefits such as quietness, improved construction standards, etc. in addition to energy conservation. It was estimated that the Ministry's program had an "influence" on 150 units built in Ontario through the Ministry's policies.

The Ministry had an agreement with a magazine in 1986 to produce and distribute a plan book of R-2000 home illustrations and to produce and sell the architectural drawings. A second contract was negotiated in a similar 1987 agreement with more illustrations. At the end of 1985, 60 percent of the magazine's distribution was not in Ontario. The Ministry responded to the audit stating that the payment made to the national distributor was in support of a worthwhile private sector initiative to increase consumer awareness of the R-2000 concept.

The Select Committee on Energy similarly addressed the subject of energy efficiency and recommended that the government should revise the Ontario Building Code to substantially increase energy efficiency standards for new residential, commercial and industrial buildings. The Committee acknowledged the importance of the Select Committee's recommendation in its review of energy demand and supply. The Ministry is systematically adjusting every program in energy efficiency to ensure that the objectives are met.

The Committee concluded that further program assessment would be required, taking into account the association between the Ministry and the private sector and the success of individual projects. The Ministry has evaluated the R-2000 program internally, but the Committee feels that a subsequent review will be needed if it is continued.

The Committee, therefore, recommends that:

> **20. If the R-2000 program continues, it should be assessed in the future first of all with respect to the effectiveness of the partnership with the private sector, and secondly on a specific project evaluation basis to determine whether problems identified by the Provincial Auditor have been remedied.**

The Ministry pointed out that there are management problems with R-2000 in part because it is tied to advocates, building companies beyond the Ministry's responsibility. The Ministry continues to promote the program's principles.

The Committee therefore recommends that:

> **21. The Ministry of Energy should conduct an assessment of the R-2000 Program and report to the Provincial Auditor. On the basis of this review, the Provincial Auditor could determine if a comprehensive report is required of the restructured communications group before April 1, 1990.**

ADVERTISING AGENCY SELECTION PROCEDURES

Management Board Secretariat

The Auditor concluded that while advertising agencies were competitively selected, documentation was inadequate. Advertising contracts must conform with the Guidelines and Directives manuals of the Management Board of Cabinet. As noted earlier, the Advertising Review Board, a central administrative body which reports to Management Board of Cabinet, monitors government-wide advertising policies and is responsible for reviewing ministry advertising materials with respect to overall quality standards and communication objectives. Every agency indicating an interest in the contract is given a copy of the qualifying criteria and a capability questionnaire.

Agencies which return the questionnaire are placed on the long list of potential vendors. This list is reduced to a shorter list of finalists after the selection panel analyzes the completed questionnaires using established selection criteria.

The selection process for agencies was inadequate in areas of documentation according to the audit. The Auditor recommended that the basis for selecting agencies for the short list should be documented and retained, including the analysis indicating criteria met and not met for each agency; a set selection process and documented award ratings to offset any differences in members on the selection panel; and remuneration should be included to determine value for money spent in reviewing contractors when a total sum is submitted and not hourly costs.

The Secretariat explained that the selection of advertising agencies is based on demonstrated creative and service capability. Firms are selected through a competition process and they are asked to submit company information and displays to illustrate their capability. This information on the firm's history must be evaluated in conjunction with their written submission. Most advertising agencies work on the industry standard of 15 percent commission allowed by the media although this is not always the case. In this situation it was negotiated in the contract price. Value for money is achieved by careful planning and control of all costs on the part of both agencies and their client ministries.

The Management Board Secretariat informed the Committee that it has rectified the Auditor's concerns over the procedures for selecting agencies for the short list and that this process now ensures that information is documented and retained on file for each agency in the short listing procedure.

It is standard practice to receive a two percent discount for invoices for the media portion paid within 10 days. The Agency of Record did not identify these payment discounts at the time of the audit, and in 1987 discounts were not being pursued as was the case in previous years. The Auditor recommended that the Agency of Record should clearly indicate on invoices where early payment discounts are offered and Ministries should be reminded to pay invoices offering early payment discounts within the time required to earn such discounts. Early payment discounts are now indicated and processed as normal practice on invoices by the Agency of Record.

The Committee noted that in the "Review of Contracts initiated by the Crown" in the Provincial Auditor's 1984 Annual Report (s. 3.4) on the awarding of contracts, issues were raised of a similar nature to those discussed in the 1988 Annual Report. The

Members encourage efficiency in advertising and communications through clearly defined objectives and management approach to ensure due regard for economy. The Committee may decide to review the Management Board Secretariat's compliance with the Directives and Guidelines administrative manuals at subsequent hearings.

WEAK CONTROLS OVER WATER AND SEWAGE TREATMENT PLANTS, MINISTRY OF THE ENVIRONMENT

Section 3.7 of the 1988 Annual Report
of the Provincial Auditor

PREAMBLE

The Provincial Auditor's report on controls over water and sewage treatment plants by the Ministry of the Environment was investigated by the Standing Committee on Public Accounts on July 22 and 23, 1989. Officials at the hearings from the Ministry included the Deputy Minister; Executive Director, Approvals and Engineering Division; Director, Kingston Regional Office; Assistant Deputy Minister, Operations Division; Assistant Deputy Minister, Environmental Services Division; Associate Deputy Minister, Intergovernmental Relations and Strategic Projects Division; Director, Water Resources Branch; Executive Director, Corporate Resources Division and Executive Director, Approvals and Engineering Division.

INTRODUCTION

The Audit on the water and sewage treatment plants assessed procedures to ensure that the treatment in these facilities was in accordance with Ministry requirements and whether the appropriate information was available to management and the public with respect to the quality of drinking water and water released from sewage treatment plants.

The water and sewage treatment plants in the Province were designed to protect public health and the environment. At the time of the audit there were 466 water treatment and 407 sewage treatment plants. The larger municipalities operate their own water and sewage plants and in smaller municipalities the plants are operated by the Ministry. The provincial government is responsible for 99 water and 238 sewage plants. Municipalities are responsible for the other plants. The expenditures for the provincially-operated plants (1988 fiscal year $74.5 M) are recovered from the municipalities.

The Ministry's monitoring mechanisms for water and sewage treatment include the following: analysis of sewage and water treatment plant samples; inspections by Regional Environmental Officers; corporate reports on plant activities; and the Drinking Water Surveillance Program.

Water treatment plants purify drinking water to the Ministry's health and aesthetic standards. The Ministry publication, "Ontario Drinking Water Objectives" outlines the government standards. Treatment plants for sewage are required to meet Ministry standards and Certificates of Approval are required to enforce specific guidelines.

As pointed out in the Auditor's report, without adequate information on key issues such as inspections and bypassing, it is difficult for the Ministry to fully and accurately assess its needs in establishing priorities. The Deputy Minister assured the Committee that the Ministry has increased the level of proactive inspections and reporting on bypasses and is developing comprehensive compliance reports. The steps taken, for example, in proactive plant inspections will assist management in rationalizing the decision-making process in the future for the allocation of funds.

The Deputy Minister explained that the issues surrounding the sewage treatment plants focus on staff training, design and management, optimal operation of the plants, inspections to ensure compliance and reaction in response to the problems. The Ministry has developed a plan for a regular inspection system of water sewage treatment plants.

ENVIRONMENTAL OFFICER INSPECTIONS

The Environmental Officers conduct formal inspections of Ministry and municipal plants at any time to ensure compliance with Ministry guidelines, objectives and legislation. Violations can result in charges under the Ontario Water Resources Act. The Officers complete plant inspection forms for submission to the Region.

The audit pointed out that regular inspections by the Environmental Officers are necessary to avoid problems and ensure proper plant maintenance within Ministry standards. Reacting to plant problems is not the preferred approach. Routine plant inspections are helpful in ensuring acceptable operating standards.

The Auditor concluded that most treatment plants had not been inspected in at least two years. Water treatment plants were inspected in only one region and sewage treatment plants were inspected in only two regions. It is imprudent to restrict inspections to situations where problems have already been identified, since the purpose of regular inspections is primarily preventive and protective. The Ministry acknowledged that there are problems in the inspection process with respect to the regularity of inspections, due in part to the availability of personnel and other resources.

It was recommended in the audit that Environmental Officers should conduct in-depth inspections of all water and sewage treatment plants at least annually. It would be advisable to supplement these inspections with periodic informal visits, particularly to plants identified as having problems. All inspections and visits should be documented to assure management of the work performed and to record matters that require follow-up. It would be helpful if the follow-up is done by a different Officer. The Ministry supported this recommendation in its response.

The Ministry's inspection system for water and sewage treatment plants has traditionally been in response to specific problems, but it is now done on a routine basis. The Auditor's request for routine inspections was supported by the Ministry and an action plan has been developed for implementation in October 1989. The same criteria are used, therefore ensuring consistency in the inspections. It will require 18 months for the first inspection of all water and sewage treatment plants and, subsequently the inspection will be done annually. A special dedicated inspection team will conduct the proactive inspection and will not be involved in the daily problems and complaints responses.

The Ministry is endeavouring to increase the frequency of its in-depth inspections while taking into account all program demands and balancing overall Ministry priorities. Environmental Officers are also required to handle other abatement work such as spills, industrial inspections and complaints investigations. Inspection follow-ups will continue to occur to the extent resources allow and the Ministry stated that it would ensure that all appropriate documentation is filed.

The Deputy Minister explained that management control is maintained thorough monthly sampling data which are reported to operations officers for reviews of plant performance. These officers conduct periodic proactive inspections. According to the Deputy Minister, a variety of problems arise from inspections. These can be related to the way in which the plant is operated, some aspects of plant design, out-dated equipment and insufficient plant capacity. These items can, at times, be resolved through staff training and/or changes in design, which may in turn require capital investments.

The Committee requested a copy of the draft "Protocol Document for the Sewage Treatment Plant Inspection Program", which was designed to address inspection inconsistencies. The Members reviewed the inspection planning process, the 19 point treatment plant inspection protocol and the review procedures for treatment plant inspections. The Auditor's staff made several observations. The approach is similar to an audit program outlining procedures, which allows for consistency among the inspections performed. On the follow-up inspections the protocol document would indicate that this was to be done at the next inspection, depending on the severity of the problem. It was suggested that the Ministry may consider establishing some criteria as to when a follow-up inspection should be done and possibly who will be responsible for it.

The Ministry explained that the Protocol Document is used in training for inspection and not abatement, which is the second follow-up stage. Furthermore, the Ministry indicated that it will consider placing the inspection criteria section in the inspections finding report, indicating whether or not all standards were met.

The Committee was encouraged by the introduction of the Protocol Document as a positive initiative addressing some of the Auditor's conclusions and recommendations.

The Committee therefore recommends that:

22. **In a future audit the Provincial Auditor should assess whether the Ministry of the Environment has taken the necessary steps to ensure that water and treatment plant inspections are adequate and that supporting inspection documentation is available for inspection. The Provincial Auditor should report to the Standing Committee on Public Accounts to verify compliance with these procedures.**

In response to further questioning on plant inspections and monitoring procedures, the Ministry explained the variations in treatment depending on the season and local industries. A random approach will be used and the inspections will not be announced in advance. The Ministry has the plant data in report form which is compiled regularly, prior to the external inspection. As requested by the Auditor, this approach would offer an objective perspective, which the Ministry endorses.

In addition to sewage treatment plants' monthly data reports and inspection reports, the plant staff conduct a "reactive" self-inspection, taking samples and having laboratory analyses prepared. The new "proactive" approach will require between 3 and 6 days for the inspections, in addition to established testing procedures.

On the Committee's question of personnel requirements for this new program, the Deputy Minister explained that the "dedicated pro-active staff" of 12 will carry out all provincial inspections. It is anticipated that this group will be adequate for the task. There are now 163 officers addressing waste and sewage plant problems such as complaints, spills and the abatement program.

SEWAGE DISCHARGE

Sewage can be discharged ("bypassing") into water bodies in an untreated/partially treated form during heavy storms when the plant and sewer system capacity is exceeded. A plant is responsible for reporting "bypassing" which can affect aquatic life and water recreation. The Ministry's comprehensive "Discharge Report" describes the capacity of plants to conform with Ministry standards for treated sewage during regular operations. Discharge Reports do not generally include information on "bypassing."

"Bypassing" is an offence under the Environmental Protection Act if it is deemed to be unnecessary and causes adverse environmental consequences. The definitions for "necessary and unnecessary" bypassing are currently being considered to aid in the determination of whether an offence has occurred. The following definitions are being considered by the Ministry. "Necessary bypassing" is defined as bypassing which occurs: during spring thaw or storm events that result in peak flows in excess of the plant design; as a result of equipment failures; and under circumstances where due diligence has been exercised by the operator in the face of Acts of God. "Unnecessary bypassing" is defined as bypassing that occurs under circumstances that do not meet the definition of "necessary bypassing."

The Ministry does not consider "bypassing" to be a spill under the Environmental Protection Act in cases in which the process is seen to be "normal," and/or in cases in which it is caused by rain or spring thaws. Action has been taken by the Ministry in the past against municipalities if bypassing is unnecessary and it is not reported.

The Auditor pointed out that the Ministry is not able to evaluate the environmental impact of bypassing and this has restricted assessment and corrective action. The objective is to take the necessary steps to prevent environmental damage in the bypassing process. When available, documentation on bypassing (untreated/partially treated sewage) could be used to identify plants in need of remedial work.

The Auditor reached several observations and conclusions. A regular report was produced by the Ministry's Utility Monitoring Information System to inform management about bypassing. For the 12 months ending December 31, 1986, 75 sewage treatment plants reported 1,400 instances of bypassing and 61 million cubic

metres of untreated and partially treated sewage. This represents approximately three percent of the total volume of sewage treated.

Not all measured bypassing occurrences were being reported to the Information System. When bypassing occurred, some of the plants did not include samples of outflowing sewage taken during these times in their final reported samples, while other plant operators avoided sampling during bypassing. This process utilizes sedimentation settling ponds when the plant capacity is exceeded.

The Auditor made the following recommendations on the basis of the observations and conclusions. All measurable occurrences of bypassing should be reported to the Information System and be reflected in the Discharge Report and a consistent practice should be adopted for sampling during bypassing occurrences. The term "unnecessary" bypassing had not been clarified to enable a consistent determination of when an offence has occurred. The Ministry is in the process of ensuring that all bypassing occurrences that can be measured are fully documented and characterized within the Utility Monitoring Information System with reference to quantity and quality.

The Deputy Minister stated that Ministry plants have been asked to report on bypassing and the 1988 municipal sewage discharge report will address plant bypassing reports. The older plants are able to report these cases, but they cannot measure the precise flow, although a new modelling procedure has been developed to estimate a bypass. As pointed out by the Committee, the Auditor was interested in both quantity and quality of each bypass. The quality or nature of the bypass materials is a problem to identify because it occurs during extreme conditions with storm runoff and overflow problems to avoid surge flows. This flow content is not always sampled, but the content is known based on data used in the model. The Ministry is of the opinion that sampling is not essential at the "first flush-through stage" of a storm, which is known to collect street litter and contaminated materials, followed by diluted sewage. The next report on municipal sewage discharge will include bypassing information according to the Ministry, and the 1989 Discharge Report will have a comprehensive picture with 70-80 percent of all plants reporting. This will in turn be of assistance in prioritizing improvement expenditures. The Members acknowledge the progress made by the Ministry to date in addressing the bypassing problem and reporting on its progress.

The Auditor's staff pointed to the overall planning considerations and the importance of data collection in making the best financial decisions for long term expenditures.

The Committee, therefore, recommends that:

23. **The Ministry of the Environment should continue to reduce the need for bypassing. When bypassing is necessary under extreme conditions, the technical data on quantity and quality of the outflow should be fully reported in the Discharge Report.**

24. **The Ministry of the Environment should identify those treatment plants most frequently involved in the bypassing procedure. These facilities should be studied and options proposed to remedy the situation as a first priority.**

The Committee discussed private sewage treatment and the Municipal-Industrial Strategy for Abatement which were not addressed in the audit.

The Committee expressed an interest in the inspection of privately operated sewage treatment operations, owned by industries. These plants are inspected by the officers visiting the municipal treatment works. Annual reports provide an inventory on discharge entitled, "Report on Discharges from Industrial Operations in Ontario."

The Committee explored the provisions and benefits of the Municipal-Industrial Strategy for Abatement (MISA) with the Ministry. This program is designed to protect water quality through controls on effluent from industry and municipal sewage plants. Some of the monitoring regulations are awaiting public comment and others have been adopted as this program is being implemented. The industrial sectors are also submitting monitoring data. The main objective is the elimination of toxic emissions.

At the municipal level the Ministry is addressing emissions by indirect discharges, that is industries releasing effluent into sewers and sewage treatment plants, such as toxic materials. The Ministry is in the process of discussing the required monitoring with municipalities. The existing grant process will offer assistance initially and will subsequently be reviewed. The Ministry's industrial inventory indicates that there is a gradual improvement in industry discharges over the past 4 years. Industrial plants are required to meet Ministry standards on air and water emissions. The Ministry can

require a private lagoon system if the industry is discharging into the sewage system. If it is being treated by the municipality, the industry pays a surcharge.

The Committee acknowledged the benefits of the MISA program, but the cost to the municipalities was questioned. The cost of the equipment and facilities required is currently being reviewed by the municipalities, including responsibility for the enforcement and operating costs.

Storm Water Management

The audit did not address the subject of storm water management, although the Members' questions pursued the following topics.

The Committee discussed alternatives which are helpful in reducing pressure on the treatment plants, such as the use of detention and retention ponds. Many government agencies have a role in drainage matters and the management of storm water and flooding. Storm water management studies are reviewed by the Ministries of the Environment and Natural Resources, but there is not yet a firm policy for the plan approval process.

The Province established the Urban Drainage Implementation Committee in 1980 and in 1988 the Urban Drainage Management Committee was created to review the approvals process and assist in implementation. At the present time the Ministries of the Environment and Natural Resources are developing a joint provincial policy for urban drainage, addressing matters of both quality and quantity. This policy will take into account technical considerations as outlined in the draft Urban Drainage Design Guidelines (April 1987). This document sets out the requirements of the master drainage plan and the storm water management plan. The planning process incorporates information on drainage systems with storm sewers; details of storage facilities (retention and detention ponds); flow calculations; controlled discharges, etc. The Committee acknowledges the ongoing nature of the work by these Ministries and looks forward to a resolution of the storm water problem as it relates to bypassing, with particular attention to those plants most frequently involved.

The issue of beach contamination was raised and the Ministry explained this problem is dependent in part on combined sewers and overflow. The Ministry is addressing the interconnected sewer problem, which is expensive and time-consuming. On questioning by the Committee, it was explained by the Ministry that the Don and Humber Rivers have been studied with respect to influents and clean-up options. Metropolitan Toronto, for example, has standards in bylaws which attempt to control discharges into the sewage system. The municipality is responsible for the outflow from the plant and the Ministry controls industries' discharge through enforcement.

The Ministry is addressing beach closures in part through a policy not to approve new combined sewers. As discussed by the Committee, there are numerous sources of extraneous water feeding into a sanitary sewer system. Peripheral drains and downspouts on homes place pressure on the system, as well as ground water infiltration.

INFORMATION RECORDS

Water and sewage plants are required to submit inflow and outflow survey samples for laboratory analysis to identify plant problems with respect to incoming pollutants etc. The in-plant report and the Ministry test results are sent to the Regional Offices and Corporate Office for analysis and recording in the Information System. The summary reports are considered in health and environmental impact evaluation reports and in program planning in funding allocations.

The audit noted that the annual "Report on the Discharges From Municipal Wastewater Treatment Facilities in Ontario" (Discharge Report) compares sample test results for individual plants (Information System files) with Ministry sewage standards. It was noted that this process does not incorporate the more stringent requirements set out in the Certificates of Approval for some plants.

The Auditor reached the following conclusions. *The 1987 Discharge Report noted that not all sewage plants met the Ministry's general requirements for sewage treatment in 1986. Had the more stringent requirements of the Certificates of Approval been used, fewer plants would have met acceptable standards. Reports on water treatment plants were not available to management and the public although the sample test results are routinely reported to the Information System. Unlike the*

Discharge Report for sewage plants, the "Municipal Water Treatment Works in Ontario" (Water Report) does not compare sample test results for individual plants with Ministry treatment requirements. Therefore, the Ministry was unable to provide the Auditor with information on whether water treatment plants met health and aesthetic treatment requirements as set out in the "Ontario Drinking Water Objectives."

In response the Ministry of the Environment pointed out that several compliance reports are currently produced. Once the integration of information systems is complete, the Ministry will produce a single comprehensive annual report which addresses facility compliance with all water quality objectives.

The Deputy Minister explained to the Committee that utility managers and senior management monitor the performance of the Ministry's water and sewage plants through corporate reporting systems. All sampling data are entered into the Utility Monitoring Information System (UMIS). Sewage plant performance is published annually in the Ministry's Discharge Report. As well, financial accountability is maintained through monthly financial reports on plant expenditures. Monthly sampling data are reported to operations officers for review of plant performance and these officers also conduct periodic inspections.

The Committee expressed an interest in the comprehensiveness of the monthly plant reports submitted to the municipalities. The sewage treatment plants' data are listed in corporate reports which originated in a joint Canada-U.S. agreement to report on discharge into the Great Lakes. The inspection reports are more comprehensive and will include the Municipal-Industrial Strategy for Abatement (MISA) data, to include in excess of 100 test parameters.

Drinking Water Surveillance Program

The Drinking Water Surveillance Program initiated in 1986 provides information on toxic chemicals in water and some basic contaminants in raw and treated water. This program requires sophisticated sampling and analysis techniques to identify and monitor the chemicals. According to the audit there are 160 different chemicals being measured in 46 municipal and Ministry water treatment plants. These plants supply drinking water to about 80 percent of the Province's population and eventually, the program will encompass all water treatment plants in Ontario, providing information on the quality of the Province's source waters as well as the treatment efficiency.

The Auditor concluded that this new program's implementation was progressing satisfactorily. The Committee's initial concern is that there is not an annual report on drinking water similar to that prepared for sewage treatment facilities.

The Auditor's staff explained that there are two information systems. These systems are the Utility Monitoring Information System (UMIS) discussed earlier and the Drinking Water Surveillance Program (DWSP). UMIS has data on both sewage and water plants and also the extent to which these plants meet Ministry requirements. DWSP addresses water quality and lists information on toxins in drinking water. The UMIS data for water treatment were not integrated with DWSP data and DWSP is the only report published on water treatment plants. The Auditor's staff further pointed out that the DWSP 1986 annual report did not address information from UMIS.

On the Committee's question on information collected from water treatment plants, the Ministry pointed out that two databases are available. One is a large unorganized database collected by all plants regularly, covering temperature, bacterial contamination, etc. The second is the Drinking Water Surveillance Program (DWSP) which is reported annually for drinking water consumed by the majority of Ontario's residents from 54 treatment plants. It analyzes 164 organic materials, pesticides, etc. and is reported on a monthly basis. According to the Ministry, the DWSP reports are available, but not the daily operating data from the plants. The Deputy Minister responded to the Auditor's concern that the Ministry published an annual report on the operation of sewage treatment plants, but that there is not a similar summary report for water. The Ministry pointed out that the DWSP is evolving into an overall provincial water report surveying 80 percent of the population's water supplies.

It was concluded that there is no report providing a comprehensive statement on the ability of water plants to meet the treatment requirements of the Ontario drinking water objectives. The Ministry responded that a single comprehensive annual report on facility compliance with these objectives would be prepared.

The Auditor's staff expressed the concern that not all plants were included in the DWSP. The Ministry explained that the reports are done on a plant-by-plant basis and since the audit, additional plants are being reviewed. Also, test parameters have not been dropped from the test except the pesticide scans, which are not carried out when these chemicals are not being applied.

There is not a data base summary on an annual basis that is readable and useful to assist in prioritizing how to improve the system's quality, taking into account the thousands of analyses required for the 180 parameters used. In summary, the Ministry is of the opinion that a compendium of the exceeding of water quality criteria, established for bacteria and other testing which is done frequently, would be of value in furthering the process of protecting water quality. It is therefore worthwhile to provide an annual report on water quality, according to the Deputy Minister, in a useful format which will prioritize spending to improve the delivery system. The Ministry's position is that if a summary report on water quality is required for the public, alternative formats will have to be considered to arrive at a usable statement of the numerous factors.

The Committee, therefore, recommends that:

25. **A comprehensive water quality report should be prepared on an annual basis, to assist in long term planning and capital expenditures. These reports should present an overview of the detailed water testing procedures in a summary statement, in addition to the Drinking Water Surveillance Program summaries. The information format should be comprehensible to the public.**

The Committee was also interested in well-water test programs in which the Ministry has become involved. The Ministry indicated that it would address potable water testing to ensure that the public is aware of the testing procedures offered by the Ministries of Health and Environment.

TREATMENT PLANT FINANCING

The issue of financing the cost of new treatment plants and repairing existing facilities was raised by the Committee in a discussion of the municipal financial responsibilities for treatment plants although this subject was not addressed in the audit. The Ministry stated that a municipality should address the fact that a plant will require expensive repairs and ultimately major capital investments and that this could be assisted through a reserve account. Furthermore, the municipality should be ensuring that development pays proportionately for new services, to protect the existing residents from having to subsidize new urban growth. Plants are debentured over a 10 to 20 year period presently, but funds are not being set aside for major capital expansions. The Deputy

Minister pointed out that some of the infrastructure in the province is in need of replacement and also the rate of growth has placed pressure on capital spending and available funds from the Ministry.

The Committee pursued the linkage between financial considerations and the Ministry's inspection program, in a discussion on providing assistance for municipal treatment plant problems. The Deputy Minister stated that these problems include operational matters and equipment failures which are paid for from the plant's annual operating budget. Some municipalities and the Ministry-operated plants have a reserve budget for equipment replacements and the Ministry has financial aid programs. Operating problems are corrected out of the plant's operation funds and some municipalities have a reserve account to cover the annual costs. The Members discussed the problems associated with these unexpected plant costs for municipalities without reserves. The Ministry outlined its subsidies, pointing out that the cost of operation is not subsidized.

In discussions with the Office of the Budget & Intergovernmental Finance, Ministry of Treasury and Economics, the provincial-local finance policy division outlined existing programs to address this problem. A "capital reserve fund" is used by the majority of municipalities to assist with major capital expenditures over the long term. A "water and sewer stabilization fund" is in use in the larger municipalities to average abnormally high taxes (rates) in a given year to a reasonable rate of increase and finally, a "contingency reserve fund" is in operation in most municipalities for small repairs and maintenance, unanticipated expenses and emergencies.

The Ontario Water Resources Act provides that the Minister may establish and maintain a reserve account to provide for renewals, replacements, project contingencies and capital expenditures. Reserve accounts have been used for municipally owned and provincially operated plants, but not for provincially owned plants or municipally owned and operated facilities. They are used for treatment plants with municipal liability. The Committee is of the opinion that because the cost of operating municipal treatment plants is high and that in addition to direct grants available through the Ministry of the Environment, financial options should be considered to further assist municipalities in treatment plant costs in addition to indirect funding through the Ministry of Municipal Affairs and special programs for northern communities under the Ministry of Northern Development and Mines.

The Committee therefore recommends that:

26. **A special joint reserve fund should be considered with provincial and municipal contributions to assist municipalities in major capital water and sewer treatment system projects, in addition to existing grant programs and the specialized reserve fund as set out in the Ontario Water Resources Act. The Ministries of Housing, Municipal Affairs and Environment should meet with the Association of Municipalities of Ontario to discuss the specific requirements of a joint reserve fund for the total water and sewage systems with reference to the provisions in the Municipal Act on the establishment of a reserve fund at the municipal level of government.**

In addition to these programs the Ministry pointed out other initiatives such as the former federal water and sewage assistance programs now retired; funding from other Ministries such as Northern Development and Mines; the disbursement program which funds Ministry-municipal joint projects; provincial projects financed and owned by the province; the Upfront Grant Program which provides direct subsidies to municipalities for construction projects; and finally, the Lifelines Program for infrastructure rehabilitation, developed to assist in infrastructure planning studies for upgrading of existing systems. The funding assistance programs depend on a formula including the population serviced.

The Committee discussed regional water and sewer treatment plant problems in relation to existing financial assistance and compared northern and eastern Ontario eligibility for program funds. The Ministry encourages municipalities to meet with the Ministries of Environment and Municipal Affairs to discuss the options where special programs do not apply.

In addition to the potential municipal costs arising from the MISA Program, Members were concerned about Ministry funding for ongoing municipal system improvements and the associated problems of being placed on a waiting list. The Ministry encourages municipalities to obtain the necessary approvals for projects, but it does not provide grant money for final design until the Ontario Municipal Board has given its approval.

The water and sewage systems throughout the province are aging in established urban centres and maintenance and capital investments will ultimately be required. The Committee is of the opinion that remedial maintenance is required to address existing infrastructure maintenance problems that are easily corrected such as leaking pipes.

The Committee therefore recommends that:

27. **The Ministry of the Environment should conduct a study to identify what can be corrected in the water and sewer treatment systems at a reasonable cost such as leaking pipes, faulty connections, etc. through a specific "action plan" in an effort to improve the systems generally and thereby control the demand flow in the systems.**

PUBLIC INVOLVEMENT

The subject of litter and discarded items in the rivers and lakes was raised by the Committee as a tangential subject and it was not discussed in the audit. The Ministry is involved in solid waste management programs, for example summer programs cleaning up rivers and streams through the Environmental Youth Corps and Students Cleaning Our Urban Rivers Program (SCOUR). The Members expressed a broad number of interests on various water quality subjects including leaching from toxic dump sites on the Niagara River, environmental health problems, prosecutions on the mishandling of hazardous waste and spills and compliance on the part of the private sector in the MISA Program.

The Committee is of the opinion that the Province of Ontario should continue to play a leading role among the various jurisdictions involved in environmental issues. Enforcement continues to be an ongoing challenge for provincial and municipal officials.

The Committee therefore recommends that:

28. **The federal, regional and local governments should be encouraged to continue to support the Province of Ontario in addressing trans-boundary environmental problems, which include, for example, the pollution of water supplies.**

The Members emphasized the importance of public support in the clean-up of lakes and rivers in the general environmental cause. A positive attitude is of fundamental importance according to the Committee and every effort should be made to foster community support for environmental programs. The SCOUR Program focused on students cleaning urban rivers and SWEEP assisted in the development and evaluation of conservation technology and demonstrated the positive effects of soil conservation practices and offered incentives for soil and water conservation.

The Committee therefore recommends that:

29. **The Ministry of the Environment should continue to encourage public involvement in environmental programs such as those directed at the cleaning of lakes and rivers. These ongoing programs and initiatives should be assessed on a regular basis to ensure value-for-money. Recommendations for improvements should be made to encourage optimum program results.**

IMPROVED COST CONTROLS AND RESOURCES MONITORING REQUIRED, FOREST FIREFIGHTING, MINISTRY OF NATURAL RESOURCES

Section 3.11 of the
1988 Annual Report of the Provincial Auditor

PREAMBLE

The cost controls and resources monitoring of forest firefighting in the Ministry of Natural Resources were investigated by the Standing Committee on Public Accounts during June and July 1989. On June 22, 1989, the Deputy Minister of Natural Resources, the Director of the Aviation and Fire Management Centre, the Acting Executive Director of the Finance and Administration Group and the Director of the Financial Resources Branch appeared before the Committee.

The Committee's visits to forest firefighting centres in North Bay, Thunder Bay and Dryden on August 29, 30 and 31, 1989 provided new insights into the issues and concerns discussed on June 22, 1989 and gave Members an excellent opportunity to review the conclusions and recommendations of the Auditor's Report with Ministry personnel on location. The Committee is of the opinion that this field experience was most valuable and wishes to extend its appreciation to the Ministry of Natural Resources personnel who participated in the discussions, aircraft demonstrations and tours of the facilities.

The Committee requests that this brief supplementary report be considered as ancillary to the Second Interim Report 1989 of the Standing Committee on Public Accounts. At such time that the Ministry of Natural Resources responds to the Second Interim Report 1989, the Committee recommends that this companion document be incorporated.

INTRODUCTION

This supplementary report to the Second Interim Report 1989 is limited to the issues and observations of the Committee's visits to Aviation and Fire Management facilities. The background information as outlined in the Second Interim Report 1989 is not repeated.

Prior to the visits, the Committee requested submissions from the Northwestern, Northeastern and Northcentral fire management regions. These documents addressed a wide range of subjects which were raised during the discussions. These included administration matters, acquisition of equipment, water bomber maintenance, utilization of equipment and staff, major fire reviews, allocation of fire crews, fire response times and fire prevention programs.

FIRE PREVENTION AND DETECTION

The Members had the opportunity to discuss the procedures used in fire prevention and detection. The Ministry officials explained the procedures for monitoring weather, determining fire danger, fire occurrence prediction, fire detection and ultimately forest fire suppression. The advances in recent years, with the assistance of modern technology, have improved the overall system. Nonetheless, some Members were of the opinion that a formal and routine review of the fire prevention and detection methodology is required to ensure an optimum operation through a measurement and evaluation of the effectiveness of the procedures.

The Committee Members acknowledge the natural ecological role of fires and those divergent philosophies which favour permitting forest fires to burn naturally. But land values, particularly near urban centres, and the need to control forest fires to protect wild life, communities and economic resources must also be taken into account. The zones within the regional system of fire fighting are prioritized, with some northern areas at a very low priority in the detection and prevention system. Some Members emphasized that ongoing research should be a major priority, particularly on the various measurement indices with respect to type of forest density, spread rates, temperatures, precipitation, ground moisture, winds, etc. that are critical to the refinement of the process.

The Ministry explained the methodology used in determining fire danger for the management areas. The danger rating system is comprised of a Forest Fire Weather Index System and the Fire Behaviour Prediction System. The Committee noted the importance of the forest blow-down phenomenon, which can promote the spread of intense fires because the damaged trees are dry and it is difficult and dangerous for crews to gain access. The Ministry addresses this problem through prescribed burns, thereby creating a green strip of land, which forms a useful fire barrier. The Committee feels that before the blow-down area is burned, contractors should be given the opportunity to harvest the zone.

The Committee therefore recommends that:

30. **The Ministry of Natural Resources should initially assess whether or not it is possible to harvest a blow-down area before making the decision to carry-out a prescribed burn. If it is possible to salvage part of the area, forest product contractors should be notified.**

The Committee's opinion is that the prediction procedures are of central importance in a value-for-money context in terms of protecting human life and preventing the potential loss of capital investments. It is essential that the forecasting system tests the prediction procedures on a continuous basis to evaluate the indices and standards in the fire risk formula and to include assessments of the predictability coefficient.

The Committee supports an ongoing review of the fire prediction/forecasting system, that is a determination of the relative accuracy and overall efficiency of the system on a regular basis in general fire reviews.

The Committee therefore recommends that:

31. **Management should monitor the fire prediction system and periodically test the forecasting procedures. Additional resources should be directed toward an assessment of the forecasting indices and codes used in determining the risk levels against the actual results with respect to weather, ground cover, moisture, etc.**

ACQUISITION OF EQUIPMENT

Additional aircraft from the private sector are on contract to supplement the operations of the air fleet by providing detection and bird dog service and for general transport requirements. Helicopters are used for initial fire attack as well as for regular fire service and support operations.

The Ministry submitted financial information regarding contract aircraft at the Committee's request. In discussion with officials on this subject it was concluded that the current budgeting procedures do not permit the Aviation and Fire Management Centre to benefit from long-term leasing arrangements which would result in cost reductions. Furthermore, the short-term, ad hoc contract extension approach is an expensive alternative. The Committee is of the opinion that any cost savings which may be possible through other budgetary arrangements should be considered.

The Committee therefore recommends that:

32. **The current budgeting approach used to retain private sector aircraft on a contract basis, to supplement the Ministry's air fleet, should be assessed to determine whether an alternative, more cost effective approach incorporating a long-term contract would result in savings.**

In cases in which facilities can be shared between Ministries, cost savings may be realized. In the North Bay visit, the need for a second helicopter pad was discussed. It was pointed out that an arrangement may be possible for joint use of a helicopter pad between the Ministries of Natural Resources and Health. The Committee endorses a sharing of facilities where practically feasible.

FIRE CREWS

The fire crews are expensive to train and the Aviation and Fire Management division cannot be assured that its crews will return for the subsequent seasons following this initial investment. Seasonal staff are most often employed in other fields during the fall-winter period. The Committee acknowledges the importance of retaining

experienced crew members and although the period when the crews are engaged in off-season interests is not within the Ministry's jurisdiction, the Members are concerned with the permanent loss of seasonal staff. The Committee is of the opinion that the problems of attrition should be studied in an effort to retain staff from season to season and thus avoid costly retraining. The Members are well aware of the diverse challenges of the work, the seasonal nature of the responsibilities and the special skills required in this profession.

The Committee therefore recommends that:

33. **Management of the Aviation and Fire Management Centre, Ministry of Natural Resources, and the fire fighters' union should address the attrition problem and discuss the length of the employment period and any other related matters and report back to the Standing Committee on Public Accounts.**

In discussions with Ministry officials, it was explained that the three-person crew system's flexibility permits various combinations of the unit crew to be deployed in response to a fire. In this context it is not seen to be a restrictive approach. The Committee was informed that the Ministry will be conducting a comprehensive assessment during 1989-1990, with full regional participation.

FIRE HOSE MAINTENANCE

During the visits to North Bay and Thunder Bay the Members had the opportunity to view open air hose drying techniques and the indoor kiln system at Dryden. The latter kiln/oven drying procedure appears to be energy intensive and therefore expensive. Also the heating process may be damaging to the hoses. However, there is no alternative, such as an outside-tower system, at Dryden.

The Committee therefore recommends that:

34. **A cost/benefit study should be done to determine the feasibility of constructing an outside-tower hose drying system which could save on the energy-intensive kiln system at Dryden during the summer season. The report should be submitted to the Provincial Auditor.**

The cost/benefit analysis should make a direct reference to the personnel required for both drying systems, including an assessment of full time and seasonal employees.

FIRE FIGHTER TRAINING

The training for the crews is an intensive 10-day process to ensure safety and effectiveness. This requires instruction in fire behaviour, suppression techniques, and maintenance and the operation of tools and equipment. The suppression techniques are primarily for forest fires with water, mineral, soil or a fire retardant as the suppressing agent. The crews rely essentially on water pumps and a network of hose lines. This standard approach is complicated in fighting municipal landfill site fires which generally contain a wide range of substances, possibly including toxic material. This has resulted in special cautionary procedures to protect crews who are not trained or equipped for this type of firefighting.

The Committee therefore recommends that:

35. **The Ministries of Natural Resources and Environment should address the sensitive environmental nature of the municipal landfill site fires with the objective of developing a policy taking into account the potentially hazardous products in these locations and the associated firefighting problems. A report should be filed within one year with the deputy ministers in these ministries and the clerk of the Public Accounts Committee.**

Officials of the Ministry of Natural Resources expressed their concern on this subject and pointed out that cautionary measures are used in cases in which forest fires interface with municipal landfill sites.

FIRE PERMIT LICENCE

Fire permits are issued primarily by the Ministry and generally the regulations are upheld, and the educational and control functions are effective. Nevertheless, the Members feel that given the number of fires attributed to human error, continued surveillance and assessment of this system is required.

The Committee therefore recommends that:

36. **The Ministry of Natural Resources should assess the procedures for issuing fire permits, including the training of those individuals with the responsibility of explaining the regulations and granting the permit.**

This could be a major step in heightening fire prevention, and giving it an even higher priority for industry, schools and the general public.

IMPROVED EFFICIENCY REQUIRED, DESIGN ACTIVITY, MINISTRY OF TRANSPORTATION

Section 3.13 of the
1988 Annual Report of the Provincial Auditor

PREAMBLE

The Provincial Auditor's report on highway design in the Ministry of Transportation was investigated by the Standing Committee on Public Accounts on August 21, 1989. Officials in attendance from the Ministry included the Assistant Deputy Minister, Engineering and Construction and the Regional Director, Central Region.

INTRODUCTION

The design responsibilities in the Ministry of Transportation include design for the construction of provincial highways. The Auditor's review of highway design in the Ministry was in part to assess whether adequate controls were in place to ensure that engineering consultants, design staff and related services were being utilized efficiently. Because most of the expenditures relate to the regions, the audit reviewed significant projects in three of the largest regions: Central, Northern and Southwestern, in addition to work at the Head Office divisions. The Auditor found that adequate controls were not in place to ensure that resources were being utilized efficiently.

The Highway Engineering Division within the Ministry's head office develops policies, design procedures and systems; conducts research; and offers advice for the infrastructure of the Highway System. The division also monitors the implementation and effectiveness of the processes and technologies used, and identifies needed improvements in consultation with the Ministry's regional offices and with industry. The Highway Design Office is within the Highway Engineering Division.

The Highway Design Office develops policies and procedures for preliminary and detail design, drainage and hydrology, and new products. Responsibilities include determining the skid resistance of pavements, evaluating the roughness and riding quality of highways, and developing and maintaining standard specifications and drawings reflecting Ministry construction and maintenance requirements. The office develops, monitors and provides technical expertise on automation of highway design activities, which is carried out by the Design Development, Design Evaluation and Pavement, Highway Standards, Drainage and Hydrology Development, and Design Automation sections.

The designs of provincial highways are prepared at five regional offices. In fiscal year 1988, 80 per cent of the design projects were prepared by regional personnel. These offices also select and oversee design projects by private consultants on contract to the Ministry. The Head Office provides technical information, general direction, and assists in scheduling design and construction projects. Policies and standardization of design across the province are also provided by Head Office.

CONSULTANTS AND DESIGN STAFF

Control Over Consultants

The Ministry personnel in planning and design are involved in the following aspects of highway design: general plan preparation; detailed drawings; quantity estimates; related work prior to the completion of specifications and the contract being awarded; and planning functions (projected transportation requirements and project defense).

In addition to Ministry staff, professional engineering consultants are retained by the regional offices to assist in design activities. During the 1988 fiscal year, 37 consulting firms were hired for planning and design assignments at an estimated cost of $19 million.

The Ministry uses a roster rotation system for selecting engineering consultants, based on an equal distribution of assignments to qualified consultants without price competition. The type of assignments awarded under this system are typically the more routine tasks. The Ministry negotiates the fee based upon an assessment of information including the contract time, the hourly rates and a payment formula, and taking into account the terms of reference.

According to the audit, consulting costs frequently exceeded ceiling prices by significant amounts. A review of several consultant project files pointed out that there was little incentive to adhere to the contract price and timetable. The Ministry experienced difficulty in establishing the total contract price in the Central Region and cost escalations were demonstrated in several cases.

The Ministry's position was that their files indicated a need for better planning and preparation of projects together with a clearer definition of the scope of the work. The consultants were of the opinion that there was a lack of control and direction on the part of the Ministry staff over day-to-day operations.

The Auditor recommended that the Ministry should exercise better control over consultants to ensure that costs are contained within the established ceiling price, particularly as consulting assignments are not tendered and are generally for routine assignments where the required time can be more accurately estimated.

The Ministry responded that establishing a ceiling price for consultant services on planning and design assignments is reasonably easy to accomplish when all influencing factors are stable and can be accurately forecasted over the life of the assignment. The Ministry agreed that greater efforts should be placed on the preparation of estimates and payments to consultants particularly in the Central Region, where assessment of the work to be done is much more difficult to estimate.

In a discussion of the nature of the work undertaken, the Ministry explained to the Members the consultant selection process, which entails a "roster rotation system which ensures an equitable sharing of the projects." The consultants are seen to be particularly important in bringing new methods and control systems into the Ministry; in turn technology is transferred to these specialists. The consultants often have highly specialized levels of expertise, so at times the competition for contracts is limited to a very few firms.

The Committee pursued the matter of consultants exceeding ceiling prices and the Ministry explained that this problem can be attributed in part to intervening factors during the contract, such as rapid urban growth. Urbanization introduces complexities into the transportation planning and engineering processes which extend over several years, resulting at times in changes to the original design concept with respect to traffic projects, interchange locations, etc. According to the Ministry there are few changes in ceiling prices on projects such as resurfacing contracts and bridge designs which are less susceptible to exogenous variables.

A second important aspect of control raised by the Members was the need for a general watchdog function over consultants. The officials explained that there is a suppliers' list of consultants from which firms pre-qualify for a project. It includes a review of the firms' professional staff and completed projects. Unacceptable firms are removed from this list. Former clients are contacted to discuss the prospective firms history. A new firm's involvement is limited to small contracts, and the consultant is rated or ranked on performance during the design process. Finally, the construction phase work is assessed and problems are discussed fully. The Ministry has a detailed estimate of the project for which the firm is bidding and if the consultant is not within acceptable cost boundaries, other firms are considered. Proposals are required for

complex projects requiring specialists other than engineers and technical people, such as economists and environmentalists. The consultant market is very active in the sense that new companies are being formed regularly. The firms are aware of upcoming Ministry projects and advertising is consequently not required.

The Committee asked how the Ministry could ensure a ceiling price on the complex projects with expected cost overruns. The officials explained that the Ministry has to do a better job on estimating. The Ministry is also attempting to divide assignments into manageable stages. For example, one consultant would assume responsibility for only the preliminary design stage on the large projects. The Ministry would have to go to Management Board to extend a given firm's contract to include a subsequent phase. The Ministry must consider stopping a project when the design concept has changed significantly in order to modify the concept.

According to the Ministry's assessment, the problem projects with cost overruns were initiated in the late 1970s and early 1980s. Since that time the Ministry has improved on its procedures to avoid exceeding the ceiling prices. The violations were primarily for major projects.

The subject of long term planning as a tool to anticipate project problems was addressed by the Members. The officials pointed out that planning is conducted on a 20 year horizon, but in some cases it was impossible to anticipate changes such as rapid urban growth. The problems resulting with property purchases, dispositions and utility companies, etc. become unmanageable for the design teams. The Ministry works closely with the municipalities to limit these problems.

The Committee reviewed the contributing factors and consequences of cost overruns. The benefit of being required to justify costs in relation to a ceiling price and maintaining close contacts with the consultant were discussed by the Members. The Committee is of the opinion that a formal reporting system is required to fully document the causes of cost overruns. Factors such as contract delays or redesigning due to rapid urban growth should be fully explained.

The Committee concurs with the Provincial Auditor that the Ministry should exercise better control over consultants to ensure that costs are contained within the established ceiling price, particularly as consulting assignments are not tendered and are generally for routine assignments where the required time can be more accurately estimated. Furthermore, the Committee generally feels that the Ministry should evaluate its procedures for estimating project costs and this may require an assessment of the present methodology. Any problems would require a reconciliation with the project cost control systems used by individual consultants. The Ministry and the consultant should have a well defined understanding of contract payments at specific points in the work program.

The Committee therefore recommends that:

37. **The Ministry should evaluate its procedures for estimating project costs. This may require an assessment of the present methodology taking into account additional variables.**

According to the Ministry, the system monitoring consultant invoices has been strengthened. A subgroup reviews all invoices against the consultant's agreement. On the basis of the increased volume of consultant projects, this group had recently been strengthened after the first year of operation. In addition to this check for contract compliance, the accounting office similarly monitors invoices. Consultants are required not to exceed ceiling contract costs and an invoice with overruns would not be paid and would be subject to an investigation. Additional costs are most often approved first in a contract addendum. If this is not the case, the Ministry meets with the consultants to review the consultants' formal report on the costs. If the costs are justifiable the Ministry then gives its approval through a contract addendum.

Monitoring Design Cost and Time

The Ministry developed the Unit Cost Reporting System (UCRS) in 1986 to provide Head Office with the information to monitor, control and compare the time taken on design activities. UCRS was used to identify deviations among regions in project costs and time, and to determine the comparative cost effectiveness of in-house personnel versus the use of consultants.

The Auditor noted that for the 1986 and 1987 fiscal years, there were wide variations in the unit costs of specific operations between regions. It was also observed that no one at Head Office was reviewing or analyzing the information generated by UCRS. The Ministry anticipated that it would be several years before information could be available from which comparisons could be made and conclusions could be drawn.

The Auditor supported the Ministry's initiative in developing the Unit Cost Reporting System. Increased monitoring is essential to aid management in identifying possible inefficiencies and to ensure that the underlying database is accurate. The Auditor concluded that several areas should be the subject of further review, namely: the average unit cost per region for in-house detailed design of resurfacing projects and reconstruction projects and the average unit cost for detailed design for reconstruction projects by consultants.

The Ministry agreed with the Auditor's observations and accepted the recommendation to continue to review and refine UCRS. It sees UCRS as a management tool which will bring added uniformity and control to the planning and design activities. One objective of the UCRS, according to the Ministry, was to be able to look at the five-year plans for design and determine necessary resources over the next five years. The UCRS was designed in part to accurately assess the variation in workload and project time which in turn will identify the need to transfer or hire personnel, determine project costs and facilitate the estimates process and long-term budgeting.

The Ministry staff acknowledged that the UCRS was not adequate, largely because the information from the regions required by the System was insufficient and/or not accurate. The main problems with the regional data base are the variation in project information across the Province on a given task and the inability to easily compare project information from the various regions. The information must be collected in the correct manner and format to be used for data averaging analyses.

The Ministry has now assigned the accountability for the System to the manager of the highway design organization. The manager assesses the UCRS and is in direct contact with the regions responsible for the information base. The problems have resulted

partly because staff are not allocated sufficient time to assemble the planning data, the information collected is not always verified, and cross-checking is not always possible. Contracts also vary within the province and in southern Ontario more design effort is used in traffic control on a project.

The Assistant Deputy Minister of Engineering and Construction pointed out that there are many project design variables that the Ministry has not been able to determine unit costs for over a five year period. The Committee recognized the complexities of the numerous variables in projections, but the Members look forward to improvements and positive progress reports. The Ministry has estimated that within three years the data will be sufficiently precise to ensure an improved level of confidence in the UCRS.

The Ministry indicated that the system should be operational by 1992 and the Members were encouraged by the possibility that the Ministry will be able to fully monitor project costs. The Committee recognizes the value and the potential benefits of UCRS and requests that a subsequent audit by the Provincial Auditor will assess the progress.

The Committee therefore recommends that:

38. **The Provincial Auditor should evaluate and report to the Standing Committee on Public Accounts on the status of the Unit Cost Reporting System within nine to fifteen months.**

The Committee indicated that it may decide to recall the Ministry officials following a review of the Auditor's report on the UCRS.

The Development Project

As discussed by the Auditor, a large number of computer programs were used to assist in the design and analysis of highway structures. In 1979, the Ministry proposed the use of the Ontario Modular Bridge Analysis System (OMBAS). The benefits included reductions in construction cost through improved design, more alternatives, reduced design time, and improved uniformity and implementation of standard methods and solutions.

According to the Auditor the new computer software program was reviewed in 1980 and it was recommended to proceed with the System. By 1988 the cost had increased from the original estimate of $730,000 to $3.4 million. The System was to be operational by September 1983, although it was not completed at the time of the audit (1988).

The audit pointed out several problems. There was no evidence of specific Management Board approval for the initial development stages of OMBAS. Management Board approval was obtained in the latter stages for part of the escalating costs. The development of the System lacked management review and direction. The Steering Committee established to monitor the development met only twice and terms of reference were not established.

The delays in OMBAS as identified in the audit are as follows: a lack of understanding of the complexity of the System by the project teams; a lack of communication among the project groups; no formal development methodology, which caused confusion among project members; and the lack of general user acceptance of the System.

The Ministry responded that the project team was aware of the complexity of developing the project, but grossly underestimated the time it would take to complete it. The Ministry stated that it would again establish an OMBAS steering committee to conduct project reviews and give direction. The first task would be to report on OMBAS accomplishments and prepare an activity forecast of time and costs for completion.

At the hearings the Assistant Deputy Minister, Engineering and Construction, emphasized that the bridge design drafting system is very complex. A steering committee was set up to assist in computerization, but this is now being carried out by engineering personnel and not computer systems experts. According to the Ministry it is now operating properly.

The cost increase in 1988 was raised by the Members and the Ministry responded that several project tasks added to bridge design costs, such as retaining walls and culverts. The increasing cost of computers compounded the total expenditure.

The Committee therefore recommends that:

39. The Provincial Auditor should evaluate and report on the progress of the Ontario Modular Bridge Analysis System within nine to fifteen months.

Concrete Removal Projects

Design specifications to establish a contract price for the removal of concrete in bridge rehabilitation are based on two payment alternatives: area or volume of concrete for removal, or time required for the removal of concrete.

According to the Auditor's Report, payment based on crew hours has disadvantages. There is no incentive to the contractor to complete the project quickly. Extensive inspection is required by Ministry staff to ensure that a full crew is in operation and that an efficient average removal rate is maintained. The audit estimated that the use of crew hours, as a method of payment, resulted in cost overruns of up to $1 million in the 1987 fiscal year.

The Ministry responded that it had re-evaluated its rehabilitation work requirements to ensure more durable bridge decks and that the new method improved the estimate process for the removal of concrete quantities. The Ministry now intends to calculate payment by the square metre for concrete removal in bridge deck rehabilitation.

At the hearings on August 21, 1989, the Ministry pointed out that the basic issue in bridge deck rehabilitation is the time and expense required for the investigations for repairs. The Ministry is now going to use measurements that benefit from new technology which can assess the condition of a bridge with radar. This replaces the old approach of carrying-out exploratory work with a Ministry inspector, which was a very slow and expensive process.

The new system will permit the Ministry to specify the construction required by the square metre. The new system of payment will be for a set cost per crew hour and if the contract has to be expanded to address unforeseen problems, the additional time required is the Ministry's responsibility.

The new radar system is now functioning and it is used during the design stage to estimate bridge damage.

The Committee therefore recommends that:

40. **The Provincial Auditor should evaluate and report on the progress of the new radar detection system used to evaluate the scope of the work in bridge concrete removal projects within nine to fifteen months. This report will specifically identify cost savings attributable to the new radar system.**

OPPORTUNITIES FOR COST REDUCTIONS, MUNICIPAL ROADS PROGRAM, MINISTRY OF TRANSPORTATION

Section 3.14 of the
1988 Annual Report of the Provincial Auditor

PREAMBLE

The Provincial Auditor's report on "Opportunities for Cost Reductions, Municipal Roads Program; Ministry of Transportation" was investigated by the Standing Committee on Public Accounts on August 21, 1989.

Officials from the Ministry of Transportation at the hearing included the Executive Director, Municipal Transportation Division and the Director, Municipal Roads Branch. The Administrative Assistant to the Provincial Auditor and the Director, Ministry and Agency Audit Branches attended representing the Office of the Provincial Auditor.

The Committee would like to acknowledge receipt from the Ministry of a copy of Management Board's directive on Transfer Payment Accountability and the Ministry's research reports into the use of salt alternatives for winter road maintenance.

INTRODUCTION

The Municipal Roads Subsidies Program (MRSP) provides financial assistance to municipalities throughout Ontario in the form of road maintenance and construction subsidies. In fiscal year 1988 the Ministry of Transportation provided $628 million in subsidies to municipalities. The audit of the Municipal Road Subsidies Program included a review of activities at the Ministry's Head Office, and visits to five districts and four municipalities to assess the degree to which construction projects were monitored. The audit objectives included assessing the adequacy of controls over the allocation and payment of subsidies to municipalities and monitoring of expenditures incurred by the municipalities.

The Ministry of Transportation plans, designs, constructs and maintains Ontario's provincial highway system and provides subsidies for municipal roads and transit, as well as policy development responsibilities for air, rail and marine programs. Within the Ministry, the Municipal Transportation Division is comprised of the Municipal Roads Office, Transit Office and a Municipal Transportation Policy/Planning Office. It is responsible for the Ministry's municipal programs; specifically developing policy and supporting transit systems and the municipal road network in both urban and rural areas. This includes the administration of the Ministry's transfer payments for municipal transit and road maintenance and construction requirements.

According to the Ministry's most recent Annual Report for 1987-88, funds were provided to 838 municipalities and 47 Indian Reserves. The program planning, policy development and evaluation, and overall administration of the MRSP has jurisdiction over rehabilitation projects and design work for future expansions. The MRSP supports a wide range of projects which assist municipalities in providing road service including the funding of new traffic signals and upgrading old signals, and the implementation of computerized signal systems in an effort to improve safety and reduce traffic congestion.

In order to establish subsidies for municipalities, the Ministry has divided the Province's 885 municipalities into three groups; namely, upper, large lower and lower tier. According to the Auditor, the "municipalities are placed in categories based upon population, level of road and bridge expenditures, and number of urban kilometres. Typically, the annual allocation process to the various tiers is based on the previous year's amount with some inflationary adjustment. Allocation to the various municipalities within each tier is done through a series of formulae. The construction allocation formula, for example, considers such factors as the current quality of roads, the dollar value of construction projects as determined by municipally prepared needs studies, and the municipality's ability to finance the road work itself. The Ministry allows municipalities to decide how the subsidies are to be spent, e.g., how much will be spent on maintenance versus construction, what type of construction (resurfacing vs. construction) is undertaken, etc."

There are 105 employees in the MRSP, comprised of 23 at the land office, 82 at the regional offices and 18 at the district offices. The regional and district personnel oversee individual municipal construction contracts including approvals for design specifications and plans for determining subsidies. The staff offers technical and policy advice at the municipal level.

In response to the audit, the Ministry explained that the municipal roads branch will move to Timmins as of September, 1989. This has resulted in a restaffing of the office and therefore more time will be required to respond effectively to the concerns of the Auditor's report.

SUBSIDY ALLOCATION AND PAYMENT

According to the Auditor's Report, controls over the allocation and payment of municipal road subsidies were adequate. Furthermore, the Report concluded that the methods used to allocate the total subsidies available were generally sound and were directed at arriving at an equitable allocation which took into account both the needs and the funding capabilities of municipalities.

MONITORING MUNICIPAL EXPENDITURES

The audit concluded that the monitoring procedures for municipal road construction exceeded adequate standards, but that municipal maintenance expenditures were not monitored although they comprised approximately half of the total subsidies. When the Ministry appeared before the Committee in August 1989, the officials explained that the Auditor's monitoring concerns have been addressed.

Evaluation of Field Visits

Field visits to construction sites consume approximately 50 percent of staff time in the districts. These visits verify construction and ensure that design specifications are met, administrative procedures are being followed and municipalities are being advised on policy and technical issues. This is standard practice by the district and visits can be requested by the municipality. Municipal subsidies in 1987 for construction were $307 million.

The municipality attempts to ensure that expenditure controls are in place to monitor these provincial/municipal projects. The Auditor visited several municipalities to assess municipal controls and monitoring functions for projects.

The municipalities visited by the Auditor were of the opinion that only smaller municipalities with limited resources needed technical advice. District staff also confirmed that project reviews were not always necessary for upper tier and large lower tier municipalities as their projects were well controlled. The smaller municipalities benefit from the District's technical and administrative expertise.

The Auditor concluded that municipal control over the construction projects was good and that regular field visits by district personnel were not always necessary. Because the upper tier and the large lower tier municipalities have their own qualified staff to supervise and control these projects, it was felt that field visits to these municipalities could be reduced significantly.

The Ministry's initial response following the audit was that staff were prepared to review the matter at once and that generally the Ministry was satisfied that the field visits are necessary for the program administration. According to the Ministry's statement the "policy only requires a limited number of visits to ensure that proper

controls are in place on a municipal project and a recent audit by the Ministry's Internal Audit Branch discussed the issue of accountability in this and other areas, and expressed some concerns that the necessary controls may not be strong enough. Management Board presently has a project underway to confirm accountability for transfer payments."

At the August 1989 hearing the Ministry explained that the visits are an essential part of the program's administration to ensure that municipalities are properly managing construction projects, to help in the planning of the Ministry expenditures and to provide technical advice, particularly to smaller municipalities. The Ministry's staff will be reviewing its current policy with respect to field visits, but the Ministry sees a need for a continuation of field visits and fully endorses the current approach. The Ministry stated that it is certainly prepared to review the existing policy on the timing and number of the field visits.

The Committee was interested in the division of Ministry involvement for the various sizes of municipalities. It was explained that in the small municipalities, the Ministry provides more advice and assistance. In the case of large municipalities, periodic visits are necessary to ensure that proper tendering procedures and good program management are being followed. The large municipalities also help the Ministry to plan expenditures, when long term requirements are outlined for the allocation process.

The Committee pursued Management Board's project to confirm accountability for transfer payments. It was explained that the MRSP is a major transfer payment program and that the Ministry, Management Board and the municipal audit bureau are discussing possible accountability guidelines. Guidelines for managers on transfer payments have been drafted to ensure accountability.

On the matter of reducing site visits to the larger municipalities, the Ministry explained that every effort is made to liaise with the local people and the Ministry staff provides advice and assistance. The officials expressed the view that there may be areas for improvement, but that existing field staff are needed and that the visits should be continued. The Executive Director explained that the municipal road program costs approximately $700 million annually and that an inspection program is required to ensure the proper expenditure of funds. Also, the inspection is necessary to maintain the local road system at provincial standards in a reliable integrated province-wide transportation network.

In summary, the Ministry concluded that it is not a high priority to change the present level of activity on field visits. There has been a 10 percent reduction in staff since the audit. The Members recognize the importance of the field visits in principle. Nevertheless there is a concern over the possible duplication of services in the larger municipalities, which are well staffed.

The Committee therefore recommends that:

41. **The Ministry should assess its municipal field visit program with the objective of avoiding duplication of inspections, particularly in the large and well-staffed municipalities. A reallocation of field inspection staff to the municipalities requiring this expertise would help to optimize the use of these resources.**

Municipal Maintenance Costs

Road Maintenance covers winter control (sanding, salting and snow removal) and direct and indirect maintenance costs. Direct costs cover ditching, curb and gutter maintenance and catch basin maintenance. Indirect maintenance costs include grass cutting, street cleaning and debris pickup.

In the Auditor's review of the Ministry's monitoring of municipal maintenance expenditures, 39 municipalities were selected for analysis of indirect maintenance and winter control costs in 1986 and 1987.

The Ministry explained that "the municipalities have full control over their road maintenance expenditures. They set standards and the levels of service appropriate to local conditions and the Ministry controls its own expenditures by providing allocation for road subsidies. These allocations are the maximum amount the Ministry will provide in road subsidies in any one year to a municipality. Expenditures by municipalities in excess of the amount supported by the allocations are made without subsidy and at full cost to the municipality."

Indirect Maintenance Costs

According to the audit, five specific indirect maintenance activities were reviewed which in 1987 accounted for $53.6 million, or 77 percent of the total subsidy dollars paid for indirect maintenance.

As pointed out by the Auditor, certain variables have not been incorporated in the analysis, such as geographical location. The analysis was broadened to include a comparison of indirect costs for five municipalities in a specific geographic region. The differences in expenditure were significant. For example, the City of Hamilton spent ten times more per kilometre for tree planting/removal and trimming than the City of Burlington.

The audit identified large increases in indirect maintenance costs such as street cleaning and grass cutting. For example, from 1986 to 1987 Belleville's street sweeping costs went up by 1,000 percent. These cost variations are more understandable in winter control programs which are subject to weather.

The Auditor concluded that there was a wide variation in maintenance costs across the Province. The Ministry's initial response was that "it had recognized the right of each municipality to set its own standards because of the differing needs and circumstances of each municipality. There are different requirements in urban areas as compared to less developed rural areas. The type of development and local land use will affect such activities as street cleaning and litter pick-up needs. In addition, the Ministry does limit subsidies through its allocation process to "average levels" of service. Many municipalities choose to provide a higher level of service and overspend their allocations. Where the Ministry has become aware and has determined that such activities are being undertaken for non-road reasons, adjustments have been made. In addition, the Ministry has previously encouraged larger municipalities to adopt Maintenance Management systems."

At the August 1989 hearings the Ministry stated that there are valid reasons that service levels do vary between municipalities and it recognizes the need to control the cost of road maintenance. The Ministry has been working with and has supported the efforts of the Ontario Good Roads Association in its Productivity Improvement Program. The field visits provide the staff with the opportunity to discuss ways of controlling maintenance expenditures with their counterparts in the municipalities.

Winter Control Costs

The audit conducted comparisons on sanding/salting and snow removal/plowing and found that the differences across municipalities were wider than expected. These two programs cost $61 million or 90 percent of the total budget ($68 M) in winter control

costs in 1987. There has been a wide discrepancy in the cost for sanding/salting and, selecting municipalities in a given geographical area, these differences were significant. The Committee discussed the variation in winter maintenance costs, particularly for those municipalities within the snow-belt region. The snow removal cost is further compounded by the road repair expenses due to the salt damage.

On the matter of cost controls for winter maintenance, the Members inquired about studies on environmentally sensitive substances to replace road salt. The Ministry outlined the work carried out on acceptable alternatives and the tests conducted. Copies of two research reports on road salt alternatives were submitted to the Committee. The Municipal Engineers' Advisory Committee has discussed this subject with the Ministry of the Environment and the meetings are on-going. The Committee also pursued the related matter of salt induced vehicle damage. The Ministry assured the Members that this matter is being studied. In addition, the economics of salt alternatives, the costs of vehicle replacement and repairs to concrete transportation infrastructure were mentioned in the maintenance cost equation.

The Committee therefore recommends that:

42. **The Ministry should continue its research to develop alternative methods of snow control, taking into account environmental and safety factors, and the economic costs associated with salt damage to the transportation infrastructure.**

Alternatives to road salt may include a combination of snow control options such as a salt substitute, snow fences, etc. The alternatives should be subject to ongoing testing, taking into account cost effectiveness. The Ministry's leadership role in this research is important to develop improved snow and ice control in winter maintenance programs on municipal roads and throughout the Province.

Monitoring Maintenance Expenditures

The significant differences in maintenance costs were not adequately explained at the time of the audit, although references were made to staff shortages and inadequate

computer equipment facilities. Within the Ministry, district staff are responsible for construction projects. The cost/km for municipal maintenance is not analyzed or monitored by the Municipal Roads Office.

The Auditor concluded that while controls over construction costs are more than adequate, municipal maintenance expenditures, which constituted almost 50 percent of the total subsidies, are not subject to any cost controls. It is estimated that the potential exists for annual savings in excess of $20 million if the Ministry monitored maintenance costs more closely and if reasonable spending limits were placed on these expenditures.

On the basis of these conclusions, the Auditor recommended that any savings brought about by greater economy and efficiency in maintenance costs could be channelled into increased funding for municipal construction projects. It was also suggested that consideration should be given to conducting operational or value for money audit work at municipalities incurring comparatively higher maintenance costs. The Ministry's response was that savings can be realized. The Ministry stated that it would require greater attention to these activities when reviewing Annual Returns and in discussions with the municipalities.

The Committee acknowledges the wide variation in maintenance costs from one area to another, taking into account differing land uses, population densities, geography and climate. The Ministry recognized that inefficiencies may occur and therefore it has been involved with the Ontario Good Roads Association and its Productivity Improvement Committee in order to assist the roads superintendents and the county engineers in the assessment of service levels.

On the subject of cost controls the officials outlined justifiable differences in service levels. It was pointed out that this is a transfer payment program, and the Ministry is not managing the municipal road network. The municipalities are not given specific standards with respect to the regularity of maintenance procedures and the excessive service levels are a factor. The allocation of funds is based on averages and the Ministry does not fully support the claim that $20 million could be saved on maintenance costs annually, although steps are being taken to reduce costs.

Furthermore, the Ministry explained inconsistencies in project reporting from year to year which has resulted in distortions in various projects such as litter pickup. Each municipality is a district corporation with its own practices for reporting on work completed, although some do have a standardized maintenance management system. In conclusion it has been impossible for the Ministry to compare across municipalities because of the different reporting methods and project classification systems. The Ministry pointed out the difficulties in attempting to average and group municipalities on the basis of expenditures. The field staff are aware of these differences and municipalities have been encouraged to address excess service levels.

In the discussion of value-for-money audits, the Executive Director of the Division agreed that this concept should be discussed and possibly introduced in the municipal road audit function which addresses expenditures and policy guidelines. Furthermore, the Ministry assured the Committee that it would follow up with an in-depth examination of the issues raised by the Auditor with respect to the maintenance costs over and above the explanations relating to geography, climate, etc.

The Ministry is aware of overspending in precise terms, but the decisions on maintenance are for local government to decide. The Ministry maintains control by virtue of the fact that the program has a cap on finite resources. On the subject of collecting more information and looking for patterns to amend existing policy, the Ministry supported the idea in principle. This may mean a reallocation of funds for different maintenance approaches over the long term period. The Ministry agreed to review this matter in depth with a completion date in 1990.

The Committee pursued the subject of road conditions and public opinion in response to these problems. The Ministry explained that "needs studies" are conducted in many municipalities and these have indicated the relative state of repair. It is in the municipalities' best interest to update these studies to address required improvements. The smaller municipalities are encouraged to have a Road Management Study every five years to assist in planning process.

The Committee raised the subject of Ministry involvement in municipal improvements to ensure value-for-money in road expenditures. Each municipal technician is responsible for between 6 and 20 municipalities and is familiar with remedies and practices for road problems on a practical level and also has attended training

programs. A new publication from the Ontario Good Roads Association shares practices among road superintendents to ensure communication of the best solutions to road problems.

The Committee endorsed the Auditor's recommendation that the Ministry should consider conducting operational or value-for-money audits for municipalities incurring comparatively higher maintenance costs.

The Committee therefore recommends that:

43. **The Ministry should utilize its expertise to conduct operational (value-for-money) audits for municipalities with comparatively high maintenance costs. These audits should be conducted during the periodic Municipal Audit Bureau audits to minimize any inconvenience.**

The Committee is of the opinion that municipal maintenance information and records should be reviewed in conjunction with the Ministry subsidy, with the objective of establishing acceptable maintenance standards. The Ministry has indicated that variations in maintenance costs will be reviewed and that maintenance monitoring will be implemented.

Since 1979 the Ministry has been reviewing its subsidy program. This has involved a joint Ministry/Municipalities forum, a review of cost-sharing with townships, the introduction of "needs calculation model" and most recently the eligible road program items have been assessed and revised. The review process is ongoing, with each component of the review requiring 3 to 4 years.

The Committee therefore recommends that:

44. **The Ministry should ensure that its ongoing review of municipal maintenance eligibility standards and criteria be considered in conjunction with the Ministry's proposed monitoring of municipal road maintenance expenditures.**

The Members concluded that it is the Ministry's responsibility to provide direction to the municipalities to ensure value-for-money audits.

APPENDIX A

Terms of Reference
Standing Committee on Public Accounts

STANDING COMMITTEE ON PUBLIC ACCOUNTS

Terms of Reference

Standing Order 104(j):

Standing Committee on Public Accounts which is empowered to review and report to the House its observations, opinions and recommendations on the Report of the Provincial Auditor and the Public Accounts, which documents shall be deemed to have been permanently referred to the Committee as they become available.

APPENDIX B

Schedule of Hearings

APPENDIX B

STANDING COMMITTEE ON PUBLIC ACCOUNTS

Schedule of Hearings

April - December 1989

Tuesday, 11 April 1989

10.00 a.m. Briefing by Research Officer

2.00 p.m. Re: Section 2.4 (1988)

From the Management Board Secretariat:

John Sloan
Secretary of the Management Board

Robert P. Brown
Chairman
Advertising Review Board

Michael Jordan
Executive Co-ordinator
Management Policy Division

Shirley Sellen
General Manager
Advertising Review Board

Wednesday, 12 April 1989

10.00 a.m. Re: Section 2.4 (1988)

From the Ministry of Energy:

Daniel Gagnier
Deputy Minister

Victor Bailey
Executive Co-ordinator
Finance and Administration Branch

From the Ministry of Tourism and Recreation:

D. Blair Tully
Deputy Minister

Peter Jackman
Assistant Deputy Minister
Tourism Division

Anne McCall
Director
Tourism Marketing Branch

2.00 p.m. — Re: Section 4.9 (1987)

Tour of Hamilton Psychiatric Hospital

Thursday, 13 April 1989

10.00 a.m. and 2.00 p.m. — Re: Section 4.9 (1987)

Tour of Queen Street Mental Health Centre

From the Ministry of Health:

Martin Barkin
Deputy Minister

Howard Danson
Acting Director
Psychiatric Hospitals Branch

Dianne MacFarlane
Administrator
Queen Street Mental Health Centre
and Co-ordinator
Mental Health and Addictions

Wayne Fyffe
Administrator
Hamilton Psychiatric Hospital

Monday, 17 April 1989

2.00 p.m. — Draft Report

Tuesday, 18 April 1989

10.00 a.m.
and
2.00 p.m.

Re: Section 3.3 (1988)

From the Ministry of Community and Social Services:

Peter Barnes
Deputy Minister

Allan Kirk
Manager
General Welfare Assistance Program
Development Unit

Mark Woollard
Manager
Policy Development Section

Wednesday, 19 April 1989

10.00 a.m.

Briefing by Research Officer

2.00 p.m.

Re: Section 3.12 (1988)

From the Ministry of Revenue:

Terry M. Russell
Deputy Minister

Derek Rowsell
Executive Director
Tax System Operations and Design
Division

Robert Moxley
Director
Motor Fuels and Tobacco Tax Branch

Thursday, 20 April 1989

10.00 a.m.

Briefing by Research Officer

10.30 a.m.

Re: Section 3.12 (1988)

From the Ministry of Revenue:

Terry M. Russell
Deputy Minister

Derek Rowsell
Executive Director
Tax System Operations and Design Division

Robert Moxley
Director
Motor Fuels and Tobacco Tax Branch

Friday, 21 April 1989

10.00 a.m. Draft Report

Thursday, 11 May 1989

10.00 a.m. Organization

Notice of Motion re: Ontario Human Rights Commission

Thursday, 18 May 1989

10.00 a.m. Motion re: Ontario Human Rights Commission WITHDRAWN

Thursday, 25 May 1989

10.00 a.m. Draft Report

Thursday, 15 June 1989

10.00 a.m. Notice of Motion re: Alleged Misuse of Public Funds

Thursday, 22 June 1989

9.30 a.m. Briefing by Research Officer

10.00 a.m. Re: Section 3.11 (1988)

From the Ministry of Natural Resources:

George Tough
Deputy Minister

Lou Lingenfelter
Director
Aviation and Fire Management Centre

John Queen
Acting Executive Director
Finance and Administration Group

John Kerr
Director
Financial Resources Branch

11.00 a.m. — Motion re: Alleged Misuse of Public Funds

Notice of Motion re: Ministry of Housing

Thursday, 29 June 1989

10.00 a.m. — Motion re: Ministry of Housing

Notice of Motion re: Ontario Place

Thursday, 6 July 1989

10.00 a.m. — Motion re: Ontario Place

Re: Section 3.11 (1988)
Draft Report

Thursday, 20 July 1989

10.00 a.m. — Re: Section 3.11 (1988)
Draft Report

New South Wales Delegation

Monday, 21 August 1989

9.30 a.m. — Briefing by Research Officer

10.00 a.m.

Re: Sections 3.13 and 3.14 (1988)

From the Ministry of Transportation:

Alex Kelly
Assistant Deputy Minister
Engineering and Construction

Brian Riddell
Regional Director
Central Region

Richard Puccini
Executive Director
Municipal Transportation Division

Ian Nethercot
Director
Municipal Roads Branch

Tuesday, 22 August 1989

10.00 a.m.

Re: Sections 3.13 and 3.14 (1988)
Draft Report

Re: Section 3.7 (1988)

Briefing by Research Officer

From the Ministry of the Environment:

Gary Posen
Deputy Minister

Julyan Reid
Assistant Deputy Minister
Operations Division

André Castel
Executive Director
Corporate Resources Division

Jim Bishop
Director
Water Resources Branch

C.E. McIntyre
Executive Director
Approvals and Engineering Division

David Guscott
Director
Kingston Regional Office

Wednesday, 23 August 1989

10.00 a.m. Re: Section 3.7 (1988)

From the Ministry of the Environment:

Gary Posen
Deputy Minister

David Balsillie
Assistant Deputy Minister
Environmental Services Division

Julyan Reid
Assistant Deputy Minister
Operations Division

André Castel
Executive Director
Corporate Resources Division

Jim Bishop
Director
Water Resources Division

C.E. McIntyre
Executive Director
Approvals and Engineering Division

David Guscott
Director
Kingston Regional Office

Thursday, 24 August 1989

1.00 p.m. Re: Section 3.7 (1988)
Draft Report

Re: Section 3.11 (1988) and
Section 4.9 (1987)

Briefing by Research Officer

Monday, 28 August 1989 — North Bay, Ontario

Re: Section 4.9 (1987)

Tour of North Bay Psychiatric Hospital

From the Ministry of Health:

J.C. Menzies
Administrator

L. Doyle
Acting Medical Director

L.C. Chapin
Assistant Administrator
Clinical Services

P.A. Lee
Assistant Administrator
Hospital Services

D. Barker
Acting Assistant Administrator
Hospital Services

J. Cameron
Assistant Administrator
Nursing Services

P.M. McCool
Regional Personnel Administrator

M.A. Fairhart
Public Relations Officer

Tuesday, 29 August 1989 — North Bay, Ontario

Re: Section 3.11 (1988)

Tour of Aviation and Fire Management Centre

From the Ministry of Natural Resources:

Tom Campbell
Supervisor
Fire Operations

Martin Healy
Program Manager

Wednesday, 30 August 1989 Thunder Bay, Ontario

Re: Section 3.11 (1988)

Tour of Aviation and Fire Management Centre

From the Ministry of Natural Resources:

Tom Campbell
Supervisor
Fire Operations

Al Johnson
Program Manager

Re: Section 4.9 (1987)

Tour of Lakehead Psychiatric Hospital

From the Lakehead Psychiatric Hospital:

Jim Restall
Assistant Administrator
Support Services

Hilda Blake
Chair
Community Advisory Board

Jan Foster
Assistant Administrator
Clinical Services

Mary Cino
Assistant Administrator
Nursing

Dawn Eccles
Administrative Assistant

Tim Ellard
Chief Social Worker

Glenn Speirs
Maintenance Superintendent

From the Ontario Friends of Schizophrenics, Thunder Bay Chapter:

Bob Schumacher
President

From the Alpha Court:

Betty Kennedy
Program Director
Case Management

Deanna Koizy
Program Director
Supportive Housing

From the Canadian Mental Health Association:

Bev Cadene
Rehabilitation Program

Thursday, 31 August 1989 — Dryden, Ontario

Re: Section 3.11 (1988)

Tour of Aviation and Fire Management Centre

From the Ministry of Natural Resources:

Tom Campbell
Supervisor
Fire Operations

Trevor Woods
Program Manager

Monday, 11 September 1989

10.00 a.m. — Re: SkyDome

Briefing by Research Officer

From the Stadium Corporation of Ontario:

Charles Magwood
Past-President

Jamie MacArthur
Vice-President
Finance and Administration

Thursday, 2 November 1989

10.00 a.m. Draft Report

Thursday, 9 November 1989

10.00 a.m. Notice of Motion re: Ministry of Industry, Trade and Technology

Thursday, 16 November 1989

10.00 a.m. Draft Report

Thursday, 23 November 1989

10.00 a.m. Motion re: Ministry of Industry, Trade and Technology

Draft Report

Thursday, 7 December 1989

10.00 a.m. Draft Reports

Thursday, 14 December 1989

10.00 a.m. Report of Sub-committee

Provincial Auditor's Special Report
Re: Ontario Place Corporation

Draft Recommendations

Draft Report

Tuesday, 12 September 1989

10.00 a.m.
and
2.00 p.m.

Re: SkyDome

Tour of SkyDome

From the Stadium Corporation of Ontario:

Richard Peddie
President

Charles Magwood
Past-President

Jamie MacArthur
Vice-President
Finance and Administration

Wednesday, 13 September 1989

10.00 a.m.
and
2.00 p.m.

Draft Report

Thursday, 14 September 1989

10.00 a.m.
and
2.00 p.m.

Draft Report

Thursday, 26 October 1989

10.00 a.m.

Re: Ministry of Housing

From the Ministry of Housing:

Glenn R. Thompson
Deputy Minister

Gardner Church
Former Deputy Minister

Bryan Davies
Former Deputy Minister

Arnie Temple
General Manager
Corporate Resources Management